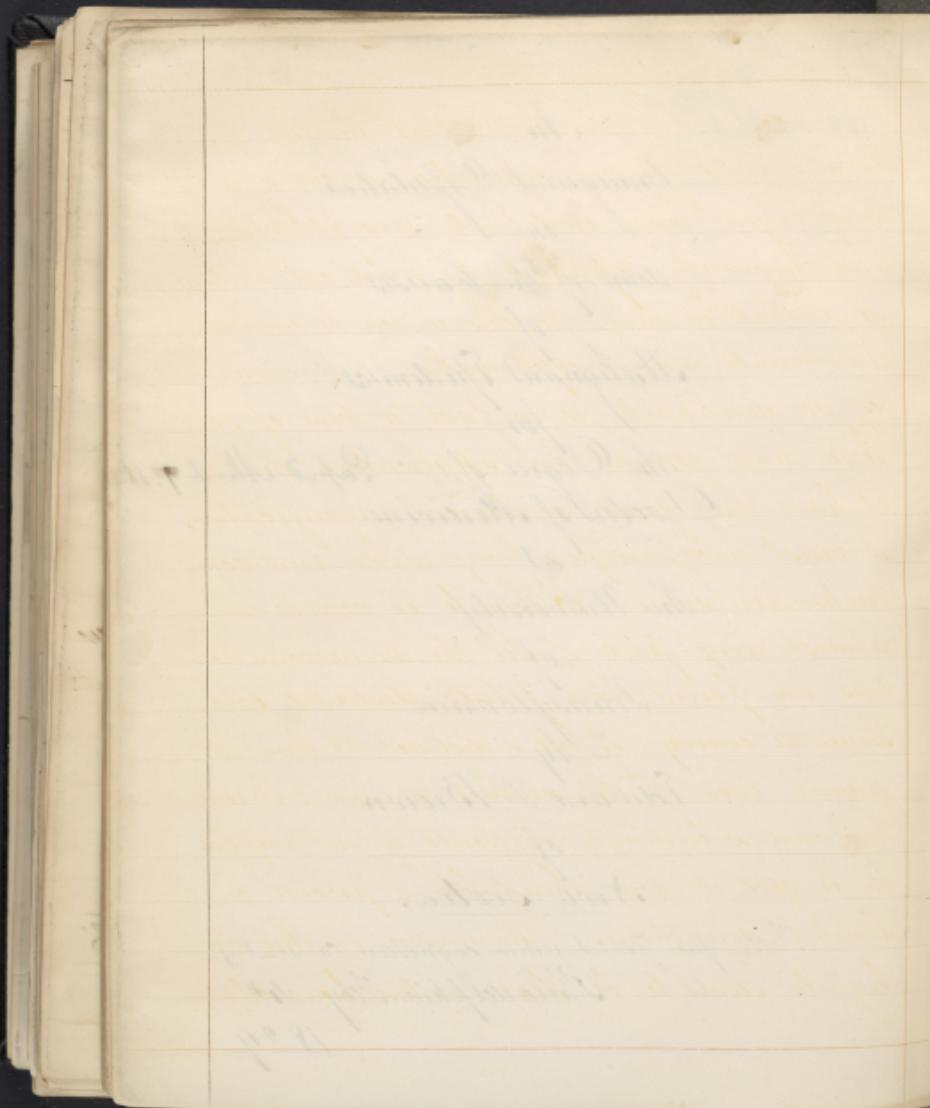


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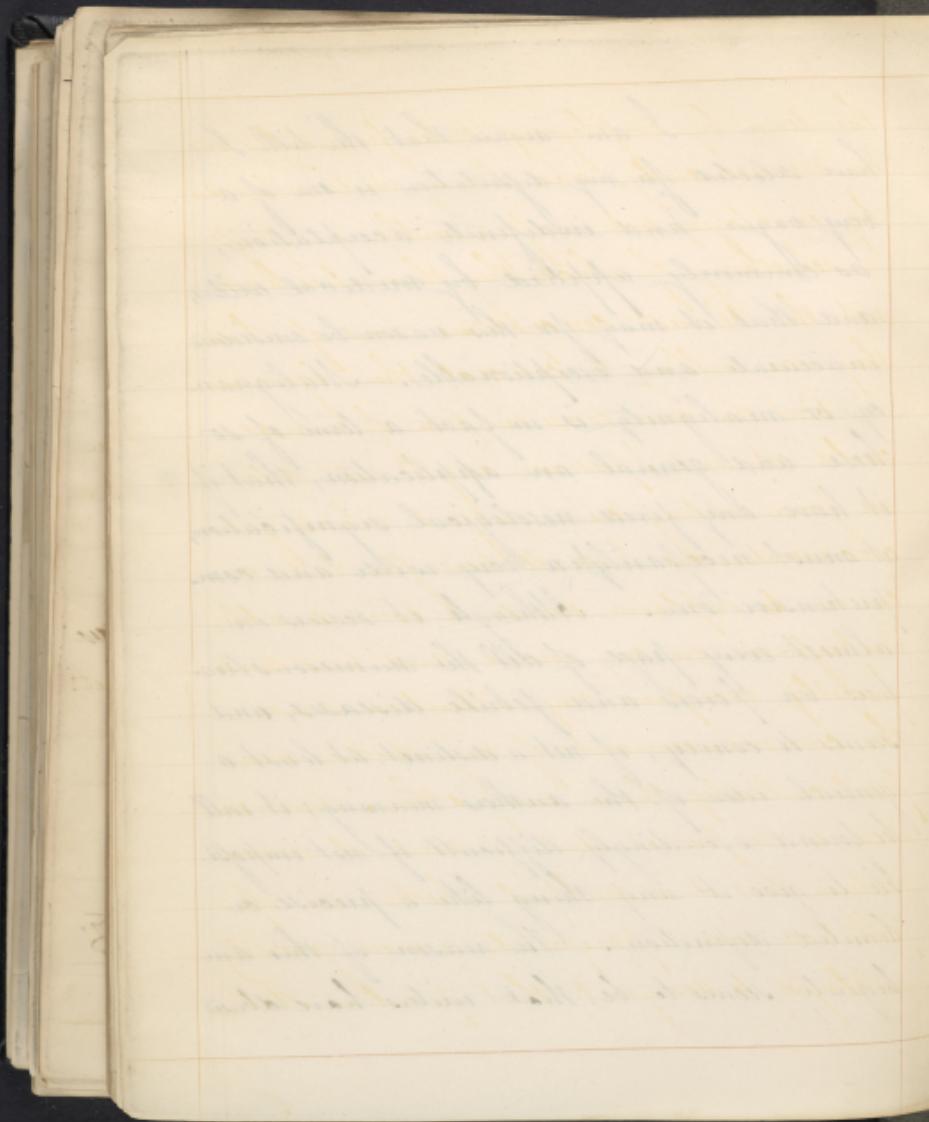
No 63

In
Inaugural Dissertation
on
some of the causes
of
Malignant Epidemics
for
the Degree of ~~Dated March 7. 182~~
Doctor of Medicine
at
the University
of
Pennsylvania
by
Edward L. Brown
of
Nova Scotia.

Felix qui potuit unum cognoscere causas. bīg.
Philadelphia Feb^ry 4th
1829

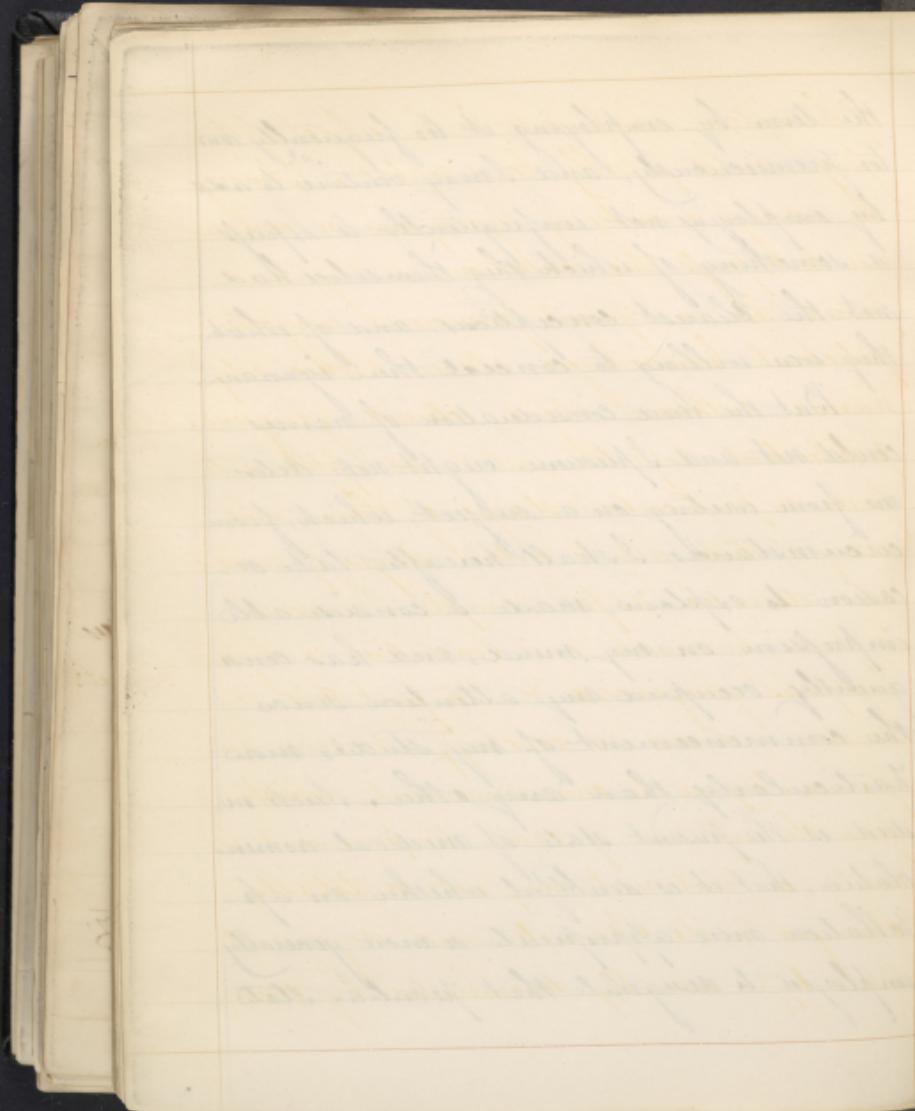


I am aware that the title I have selected for my dissertation is one of a very vague and indefinite acceptation, as commonly applied by medical writers, and that it may for this reason be considered inaccurate and exceptionable. Malignancy or malignity is in fact a term of so loose and general an application, that if it have any fixed nosological signification, it must necessarily be a very wide and comprehensive one. Although it occurs in almost every page of all the numerous treatises on Fevers and febrile diseases, and seems to convey, if not a distinct, at least a general idea of the authors meaning; it will be found exceedingly difficult if not impossible to give it any thing like a precise or limited definition. The reason of this ambiguity seems to be, that writers have abus

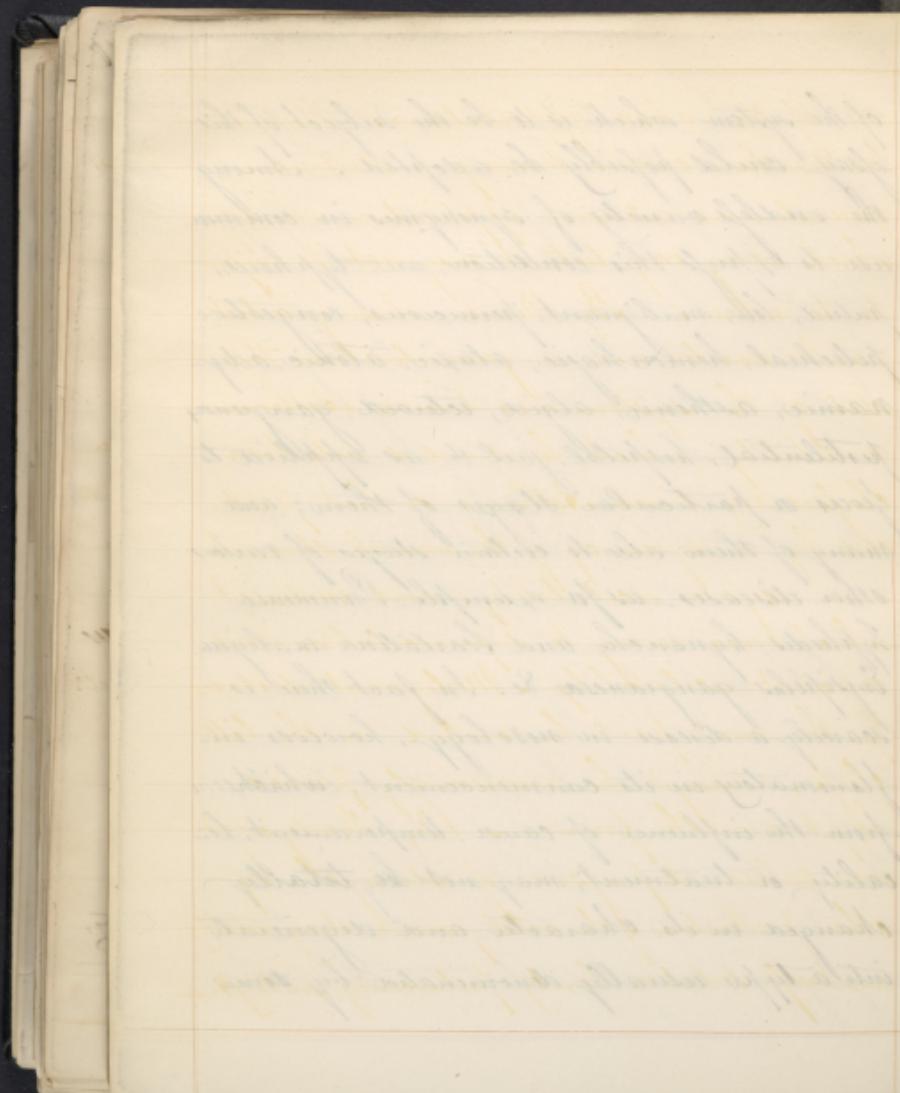


the term by employing it too frequently and
too promiscuously, and I may venture to add
by employing not infrequently to express
a something of which they themselves had
not the clearest conceptions, and of which
they were willing to conceal their ignorance.

But the mere consideration of names
could not and I presume ought not deter
me from writing on a subject, which, from
circumstances I shall hereafter take oc-
casion to explain, made a considerable
impression on my mind, and has conse-
quently occupied my attention since
the commencement of my studies more
particularly than any other. Such in-
deed is the present state of medical nomen-
clature, that it is doubtful whether an ap-
pellation more appropriate or more generally
employed to designate that peculiar state



of the system which is to be the subject of this essay could possibly be adopted. Among the endless variety of synomymes in common use to express this condition, are - typhoic, putrid, lob, malignant, pernicious, congestive, petechial, hemorrhagic, ataxic, atotic, adynamie, asthenic, algic, icteroid, gangrenous, putridential, hospital, jail &c. as applied to fever or particular stages of them; and many of them also to certain stages of various other diseases, as for example, Pneumonia, Typhodes, Cynanche and Scarletina maligna, Cysipelas, gangrenosa &c. In fact there is scarcely a disease in nosology, however inflammatory in its commencement, which from the influence of cause, temperament, locality or treatment, may not be totally changed in its character and degenerate into a type usually denominated by some



one of the above appellations. There are
besides these certain terms of a still more
general and extensive application, some of
which being very tame it may not be impos-
per to notice. By Brown, whose greatest
fault was too wide a generalisation, this
state of the system was termed Asthenia
or debility, which he divided into two
classes, viz. direct Asthenia or that produ-
ced by a deficiency of the normal stimuli
and excessive excitability; and indirect
which was owing to supersensation and
deficient excitability. Malignant disease,
for the most part he ranked in the latter
class; although he erroneously placed
Sapphus in the former - By Fordyce it
was called depression of strength, by
others prostration of the vital powers, along, debility
weakness, sedation, lassitude, putrescence, sinking -

It would be superfluous and foreign to my purpose to enter into a discussion of the derivation, signification, and merits of these several appellations; especially since there is not one I presume, against which there might not justly be raised many serious and weighty objections. It is indeed a fact uncuriously to be regretted, that names so puzzling to the student and so burdensome to his memory, bearing as they do, in their very sound a convincing proof of the ignorance of the times in which they were adopted, should continue to be tolerated, and even clung to with a kind of religious fondness, in the present enlightened era of medical science. - Perhaps no two sciences have undergone so great a revolution within a few years as those of Chemistry and Medicine and yet how different is the present state

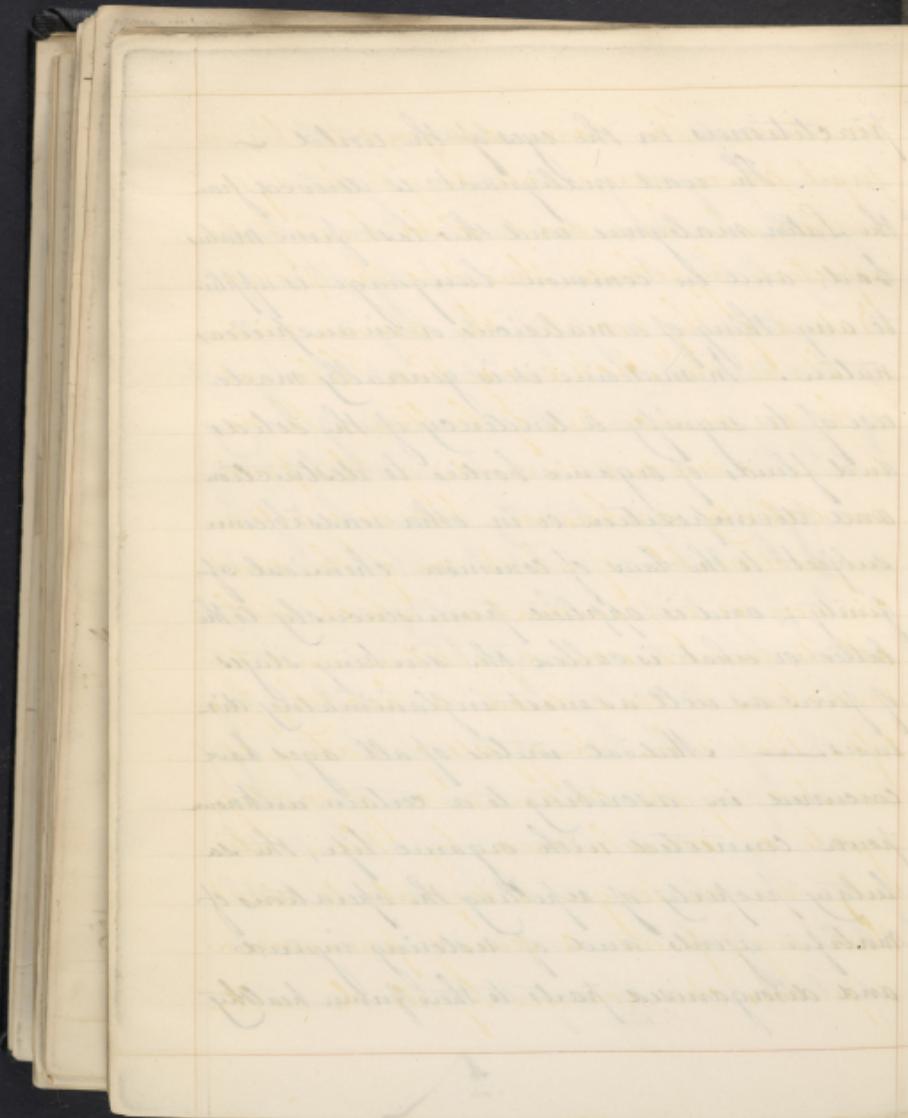
per il nostro uso quotidiano di alcuna
cosa che si considera a cui non è possi-
bile attribuire alcuna qualità particolare
che sia tale da rendere quella cosa
più preziosa che quella di cui si tratta.
Questo è il motivo per cui la
città di Roma ha sempre avuto
spazio sufficente per le sue
convenienze ed è stato possibile a Roma
adattare dove più veniva di cui non era
necessario, e ad adattare il suo territorio
a questo scopo. E' vero che Roma
non ha mai avuto una grande
estensione di territorio, ma non per
questo ha mancato di spazio per le
sue diverse esigenze. Roma ha sempre
avuto un gran numero di spazi
disponibili per le sue diverse esigenze,
e questo è stato possibile grazie alla
sua posizione geografica, che le ha
permesso di avere accesso a molte
fonti di rifornimenti, e anche a
molte fonti di energia. Roma ha
sempre avuto una grande
estensione di territorio, ma non per
questo ha mancato di spazio per le

of their respective nomenclatures; while the former by rejecting all its antiquated superfluities and substituting terms which convey to the learner a brief definition of the substance or property they are intended to represent, has arrived at the highest degree of perfection; Medicine is groaning under the encumbrance of an obsolete and senseless jargon totally unworthy of the present elevated & philosophical rank of the profession - This doating and superstitious veneration for the blunders of antiquity cannot be of long duration, a happy change the constant result of progressive improvement is to be anticipated, a change calculated to facilitate the progress of the student, contribute to the utility of the sciences and advance its reputation and that of its teachers and

all like; and because nothing can
be exact in the judgment of man
there can exist nothing that will
not be liable to error. And it is even
so far from perfect in knowledge
that nothing can be said to be known
which is animal, because it is not
possible for it to understand all the
things which fall upon it; and
therefore it is liable to error.
And because it is not able to under-
stand all the things which fall upon
it, it is liable to error. And if there
is any thing that is not known by
the animal, it is liable to error.
And if there is any thing that is not
known by the animal, it is liable to

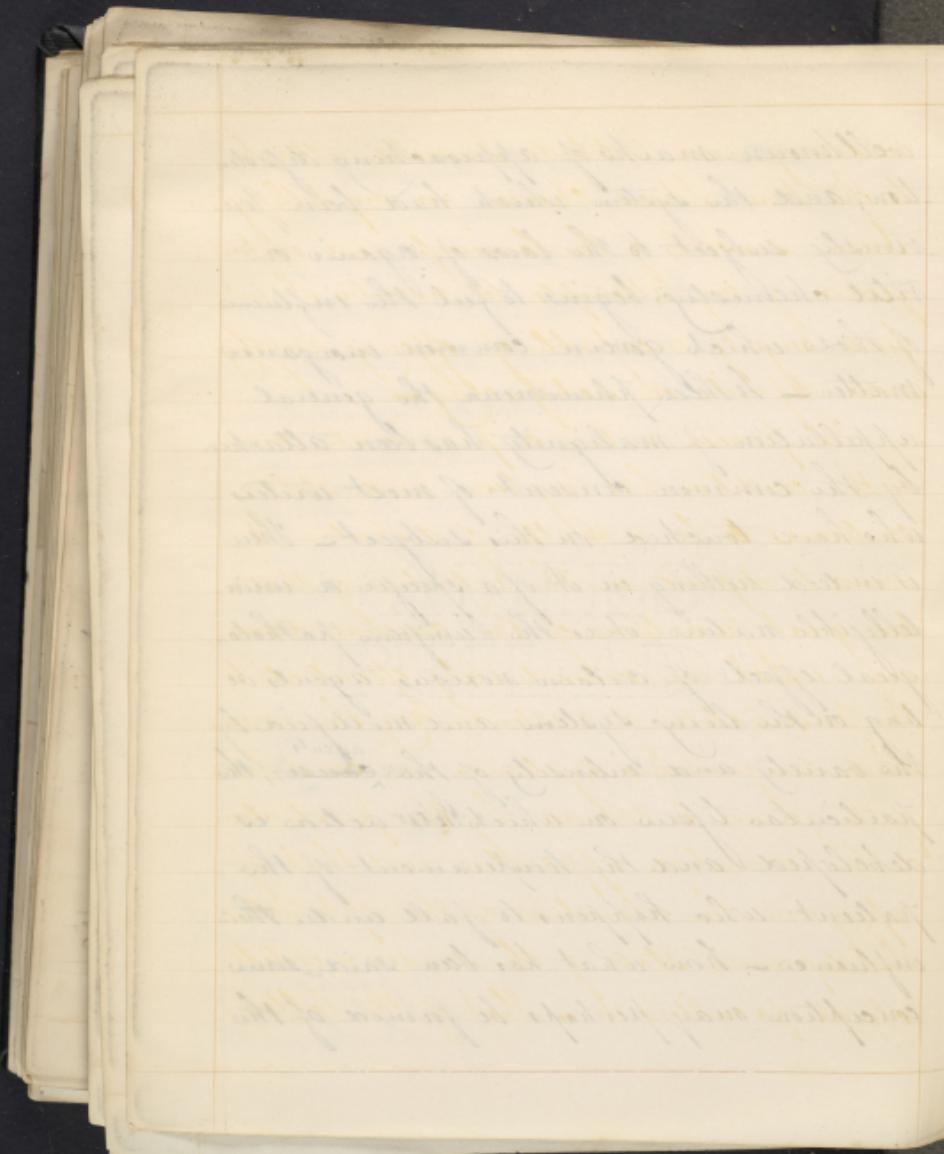
practitioners in the eyes of the world —

The word malignant is derived from the Latin malignus and this last from Mala bad, and in common language is applied to any thing of a malicious or inauspicious nature. In medicine it is generally made use of to signify a tendency of the solids and fluids of organic bodies to destruction and decomposition or in other words to become subject to the laws of common chemical affinity; and is applied promiscuously to the latter or what is called the sinking stages of fevers as well as most inflammatory diseases — Medical writers of all ages have concurred in ascribing to a certain unknown power connected with organic life, the salutary property of repelling the operations of malific agents and of restoring injured and disorganized parts to their former healthy



condition - The name assigned to this won-
derful power varies according to the different
authors who have made it the basis of their
respective hypotheses, thus it is the *opus* or
Natura of Hippocrates, the *anima medica*
of Stahl, the *Aetherus* of Van Helmont
& the *vis medicatrix* of Cullen - The na-
ture and *modus operandi* of this power
are entirely unknown, but its effects are
unquestionable, of which one of the most
common is inflammation, which with
all its numerous modifications and ter-
minations is considered a healthy pro-
cess. But when the effects of nature ex-
hausted by the continuance of mortific
agents are overwhelmed by their inten-
sity are no longer adequate to resist
these aggressions, a series of phenomena
supervene, characterised by all the well-

wellknown marks of approaching desolu-
tion; and the system, which had been pre-
viously subject to the laws of organic or
vital chemistry, begins to feel the influence
of those which govern common inorganic
matter - To these phenomena the general
appellation of malignity has been attached,
by the common consent of most writers
who have touched on this subject. There
is indeed nothing in it of a specific or unin-
telligible nature, it is the ~~uniform~~^{unifino} patholo-
gical effects of certain noxious agents ac-
ting on the living system and modified by
the variety and intensity of those ~~agents~~^{agents}, the
particular tissues on which their action is
developed and the temperament of the
patient who happens to fall under their
influence - How what has been said, some
conception may perhaps be formed of the



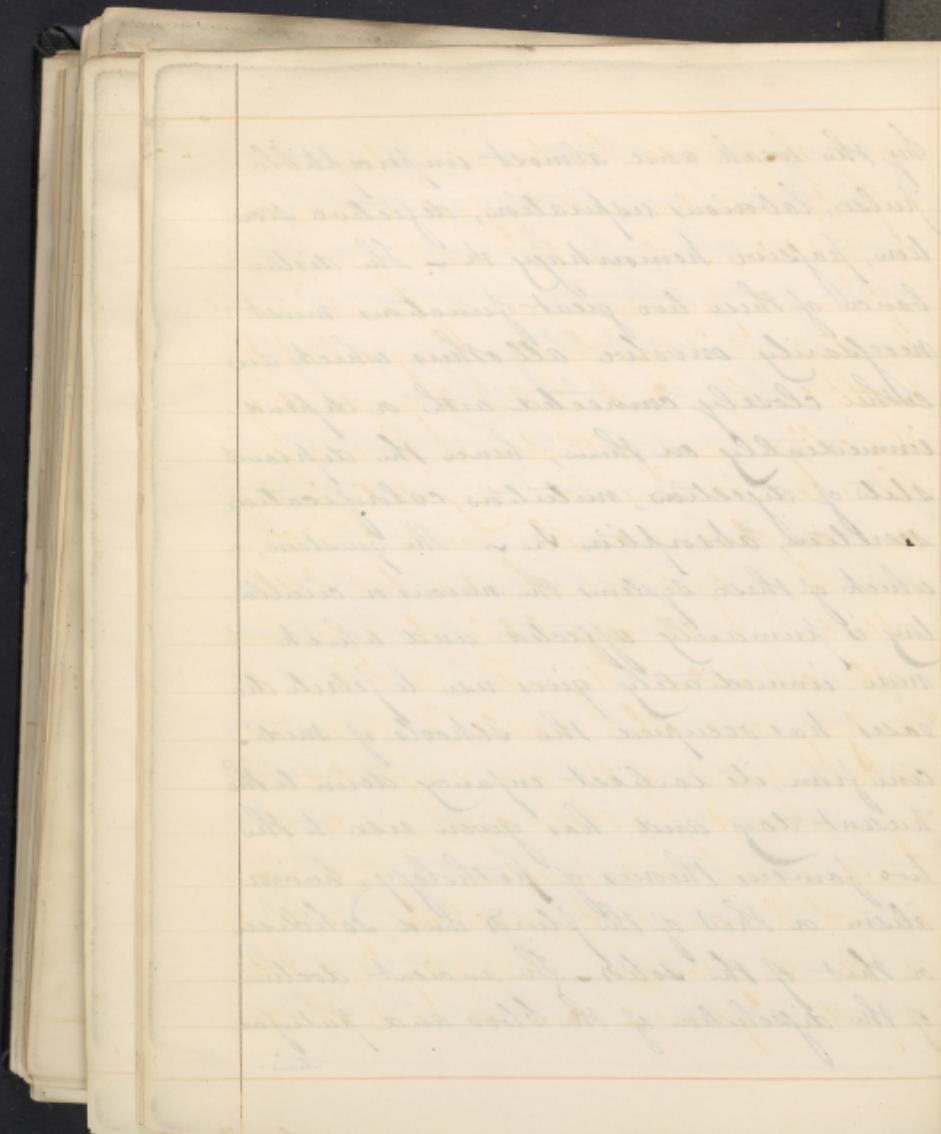
meaning and latitude I would attach
to the term I have chosen for my title paper,
I am sensible of the lameness and imper-
fection of my attempts to describe it, but
find myself incapable of offering anything
more definite or satisfactory -

The precise nature or proximate cause
of this condition has long been and still
continues to be a matter of dispute - It
seems to depend on the vitiation of those
two great functions of the animal econo-
my, which are immediately essential to
the preservation of existence, viz the nervous
and sanguinous systems. The condition
of the former is evinced by the prostration
of the locomotive apparatus and that of
expression, the relaxation of the sphincters,
the depraved state of the senses & intel-
lectual faculties &c - That of the latter

and a few others, which may
have been of wood and were
thus more rounded than the stones and
had also a more pointed or conical shape.
There were also some which were
more rounded or smooth and
had a more rounded or conical shape.
The rounded stones were
more numerous and of smaller size
and had a more rounded or conical shape.
The smooth stones were
less numerous and of larger size
and had a more rounded or conical shape.
The rounded stones were
more numerous and of smaller size
and had a more rounded or conical shape.
The smooth stones were
less numerous and of larger size
and had a more rounded or conical shape.

by the weak and almost imperceptible pulse, laborious respiration, defective secretion, passive hemorrhage &c. - The disturbance of these two great functions must necessarily involve all others which are either closely connected with or depend immediately on them; hence the depraved state of digestion, nutrition, calorification, secretion, absorption &c. The question, which of these systems the nervous or circulatory is primarily affected and which most immediately gives rise to febrile diseases has occupied the schools of medicine from its earliest infancy down to the present day and has given rise to the two famous theories of pathology, humor alien or that of the fluids and solidism or that of the solids. The ancient doctrine of the dissolution of the blood and putrefaction

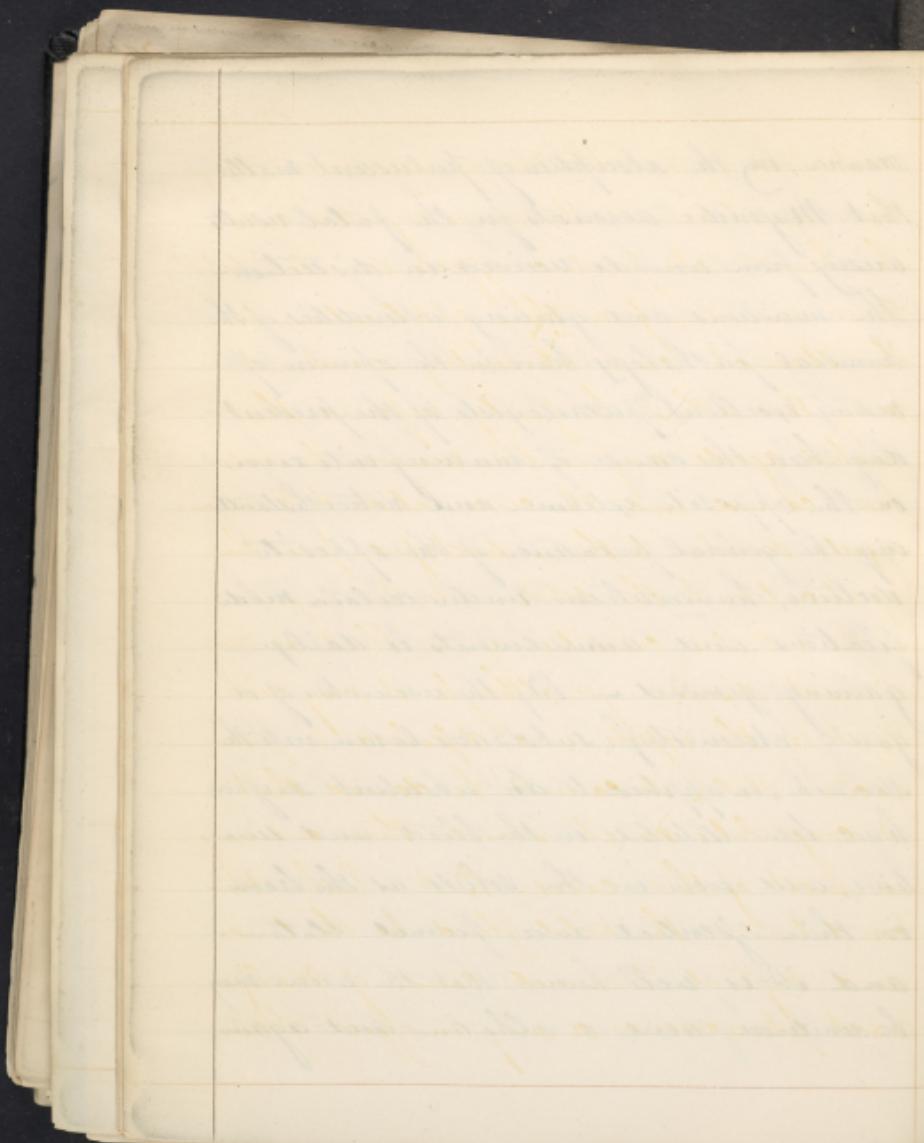
^{the}



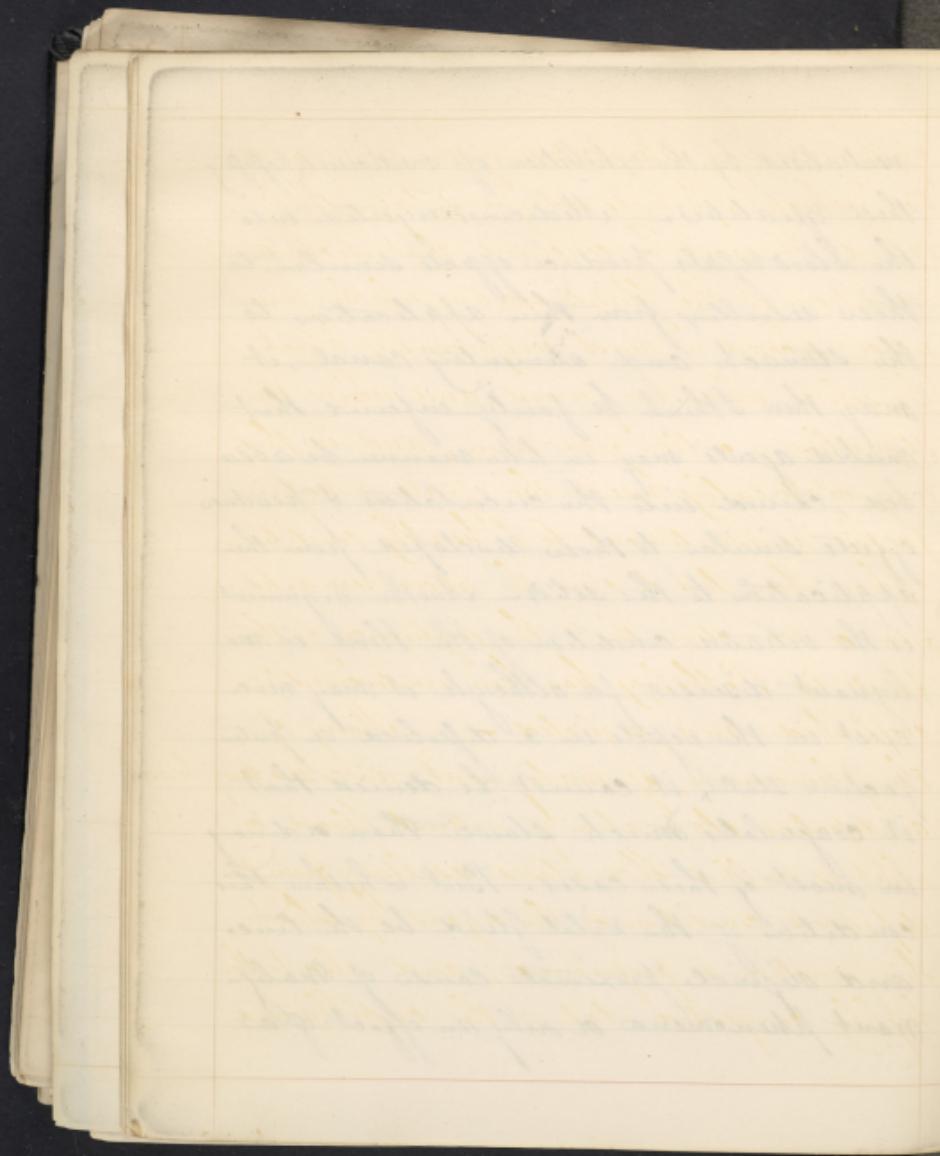
tion of the fluids has long since been almost entirely neglected and in fact is now nearly exploded. This is the result of numerous experiments performed on different animals by different physiologists, among which those instituted by Dr. A. Seybert & graduate of this college and published in his inaugural thesis seem to have been very satisfactory ~~and~~ ^{and} conclusions on this points. In many years the subject has attracted but little attention, until very lately the experiments of the celebrated Magendie, M. Collard de Martigny and others would ^{seem} to favor the establishment of this old & neglected theory - According to these experiments, it would appear that injections of putrid matter into the veins of animals were followed by all the phenomena usually exhibited in putrid fevers. And it is in this man-

Wetland area and salt marsh
area and is very much like the
wetland area.
There are many
water plants in the
wetland area.
The water plants are
mostly aquatic plants.
There are also some
terrestrial plants in the
wetland area.
The wetland area has
many different types of
plants, including grasses,
herbs, shrubs, and trees.
The wetland area is
very diverse in terms of
plant life.

manner, by the absorption of putrescent matter
that Magendie accounts for the fatal results
arising from wounds received in dissection.
The monstrous and glaring absurdities of the
humoral pathology have in the opinion of
many excellent pathologists of the present
day been the cause of running into error
on the opposite extreme, and notwithstanding
the general prevalence of the opposite
doctrine, humoralism under certain modi-
fications and amendments is daily
gaining ground. By the researches of our
giant chemistry substances taken into the
stomach, or applied to the absent surface
have been detected in the blood and secre-
tions, and even in the solids as the brain
in their essential and formal state -
and it is well known that the urine may
be rendered acid or alkaline and again

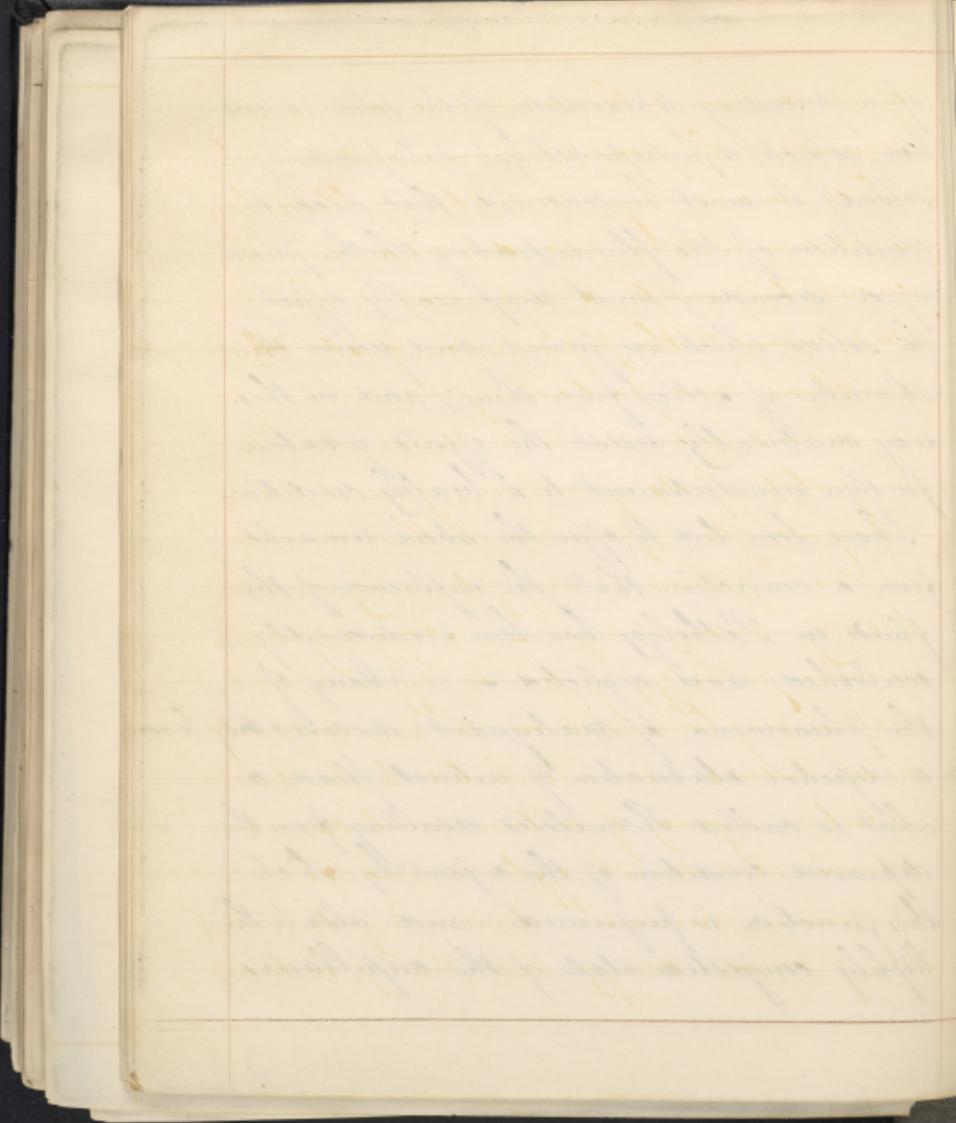


neutralised by the exhibition of medicines possessing
these qualities. Medicines injected into
the blood vessels produce effects similar to
those resulting from their application to
the stomach and alimentary canal, it
may then I think be fairly inferred that
malignant agents may in like manner be abso-
bed, carried into the circulation & produce
effects similar to those developed from their
application to the solids. Another argument
is the vitiated condition of the blood in ma-
lignant diseases, for although it may never
exist in the vessels in a ~~degenerate~~ or putre-
factive state, it cannot be denied that
it coagulates much slower than ordinary
in most of these cases. But whether this
condition of the vital fluid be the true
and original proximate cause of malig-
nant phenomena or only an effect of a



of a preceding deprivation of the solids / a question, which is perhaps not yet satisfactorily solved / it must be conceded, that such a condition of the fluids existing whether primary or secondary must reciprocally affect the solids, which are famed and receive their stimulus of action from them; and in this way materially assist the efforts of nature for their reinstatement to a healthy condition.

I have been led to offer the above remarks from a conviction that the influence of the fluids in Pathology has been undeservedly overlooked and neglected — Many of the phenomena of malignant diseases may be due to a defective elaboration of arterial blood or what is called Hematosis resulting from the deprived condition of the organs by which this function is performed; and also to the highly congested state of the capillaries



of one or more of the internal organs in consequence of the preceding nervous irritation; by which means large quantities of blood being as it were isolated and diverted from the circulating mass, a deficiency of that fluid so necessary to the performance of all the functions, and particularly the secretion of the nervous influence, is the direct result. The fatal effects of extensive general blood letting so often experienced in these cases may on this hypothesis be very plausibly and rationally accounted for - According to the nervous pathology of which Hoffmann and Hallen may be considered the founders, malignant diseases were attributed to the direct sedative agency of certain remote causes, as human and marsh effluvia, cold &c on the sensus communis, diminishing the secretion of nervous energy and thereby inducing

a state of general debility, by the consequent depression of all the other vital functions.
In order that this effect should take place according to the Galenian school, it is necessary that these several causes be so powerful, or that the vital resistance be so weak, or that both these circumstances be combined in such a manner that no action is prevented from taking place.

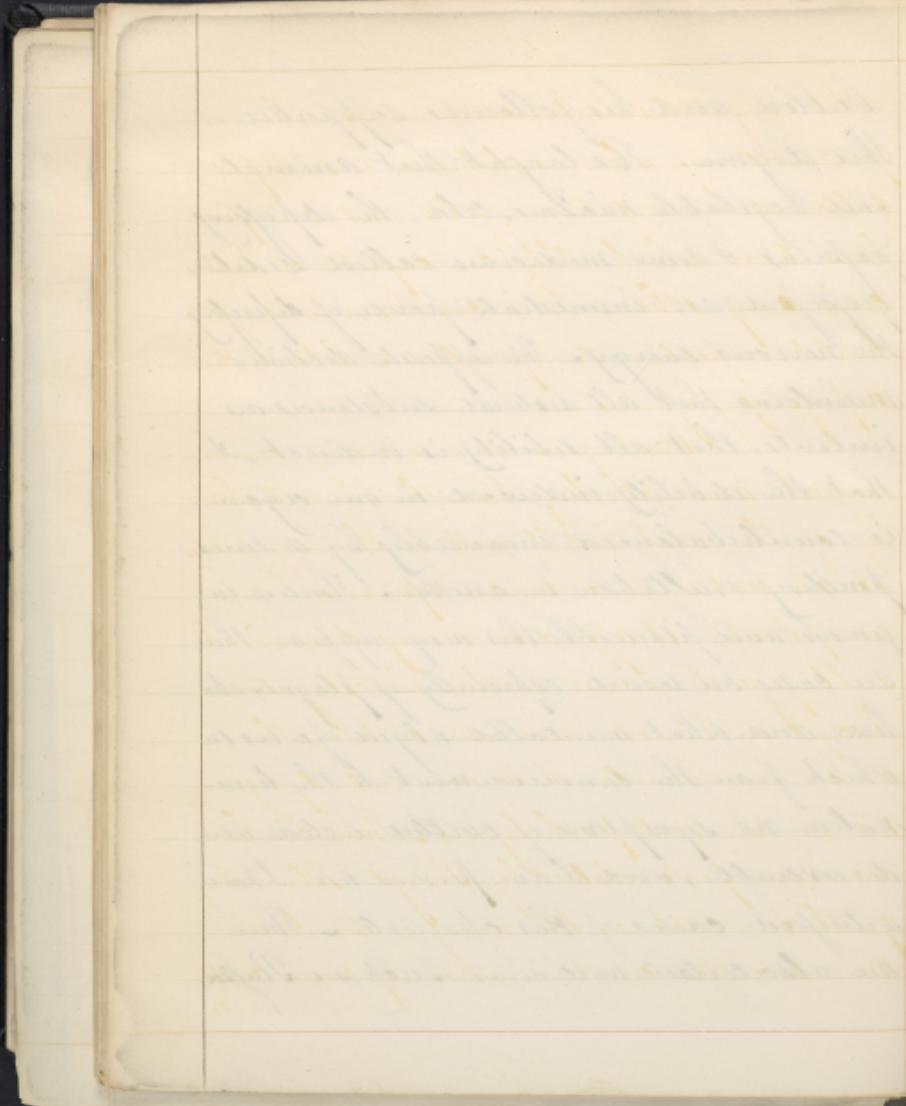
Having made these preliminary observations, I now proceed to what is more particularly the subject of this essay, viz. the several causes of Malignancy. Thisology is divided into remote and proximate, of which the latter has already been cursorily noticed; the subsequent observations will consequently be confined exclusively to the former. Remote causes are subdivided into predisposing and exciting. Thus a person of a lymphatic temperament

ment is said to be predisposed to Pathesis
but this predisposition might remain inert
for an indefinite time without such a ter-
mination, were it not called into action by
the application of some exciting cause, as
sola se. This nice subdivision is doubt-
less not without utility, but the line of dis-
tinction appears to be often obscure & na-
equivocal; at least I must confess my ig-
norance of any certain discriminating cha-
racter & hope to be pardoned if I some-
times confound them.

The modus operandi of causes has
long been the subject of much ingenious &
animated discussion. The point most
contentious is whether there exist any phy-
sical agents mali- or sanative which
when applied to the living tissues are capable
of producing directly debilitating effects.

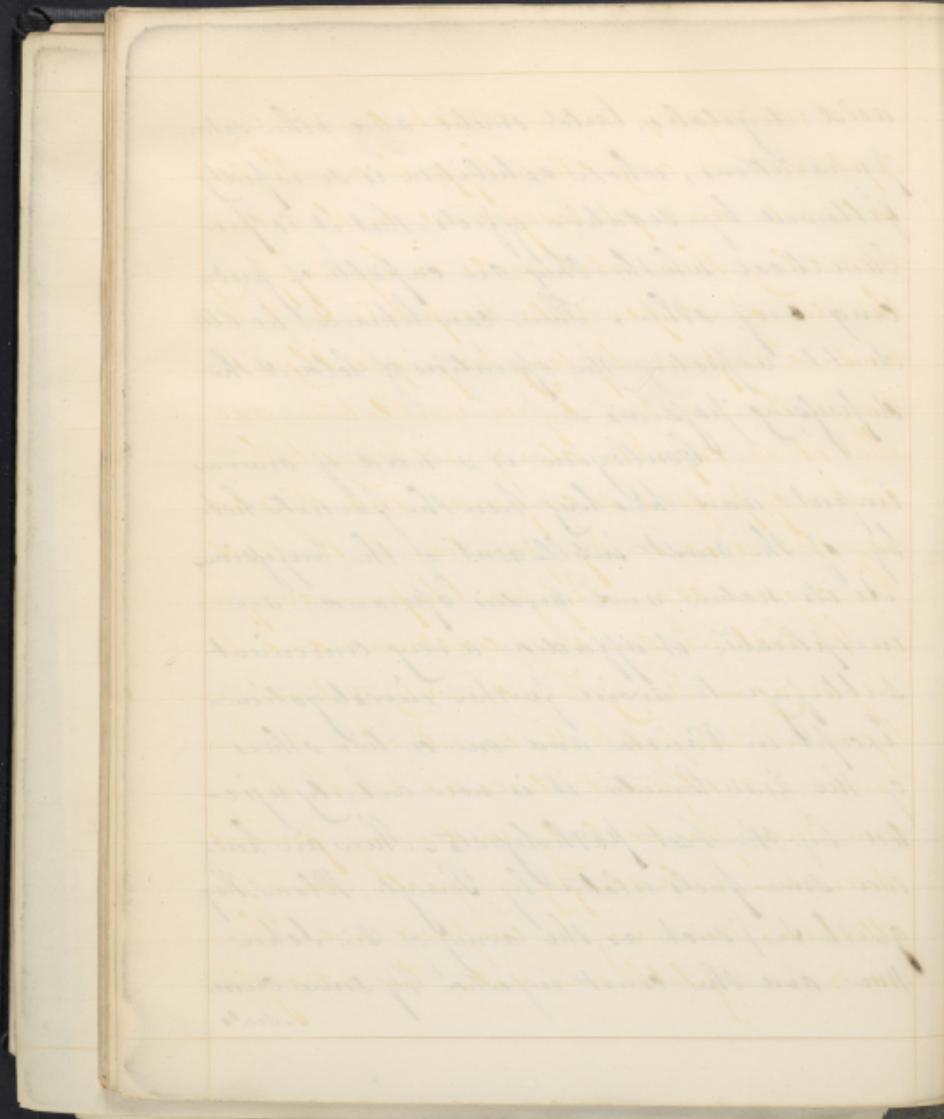
the first time I have seen a bird
of this species. It was a small
brown bird with a long tail
and a short beak. It was
perched on a branch of a tree
and was looking down at the ground.
I think it might be a sparrow.

Bullen and his followers supported this dogma. He taught that animal and vegetable miasms, etc., the depurifying poisons & some medicines called Sedatives, possessed an immediate power of depurifying the nervous energy. The opposite doctrine maintains that all material substances are irritants, that all debility is indirect, & that the debility induced in one organ is counterbalanced invariably by a corresponding exaltation in another. However ingenious and plausible this may appear, there are cases on record especially of plague, cholera, and what are called algea fever in which from the commencement to the termination no symptoms of exalted action were discoverable, and I am persuaded I have witnessed cases of this character - There are also certain medicines such as Puffie

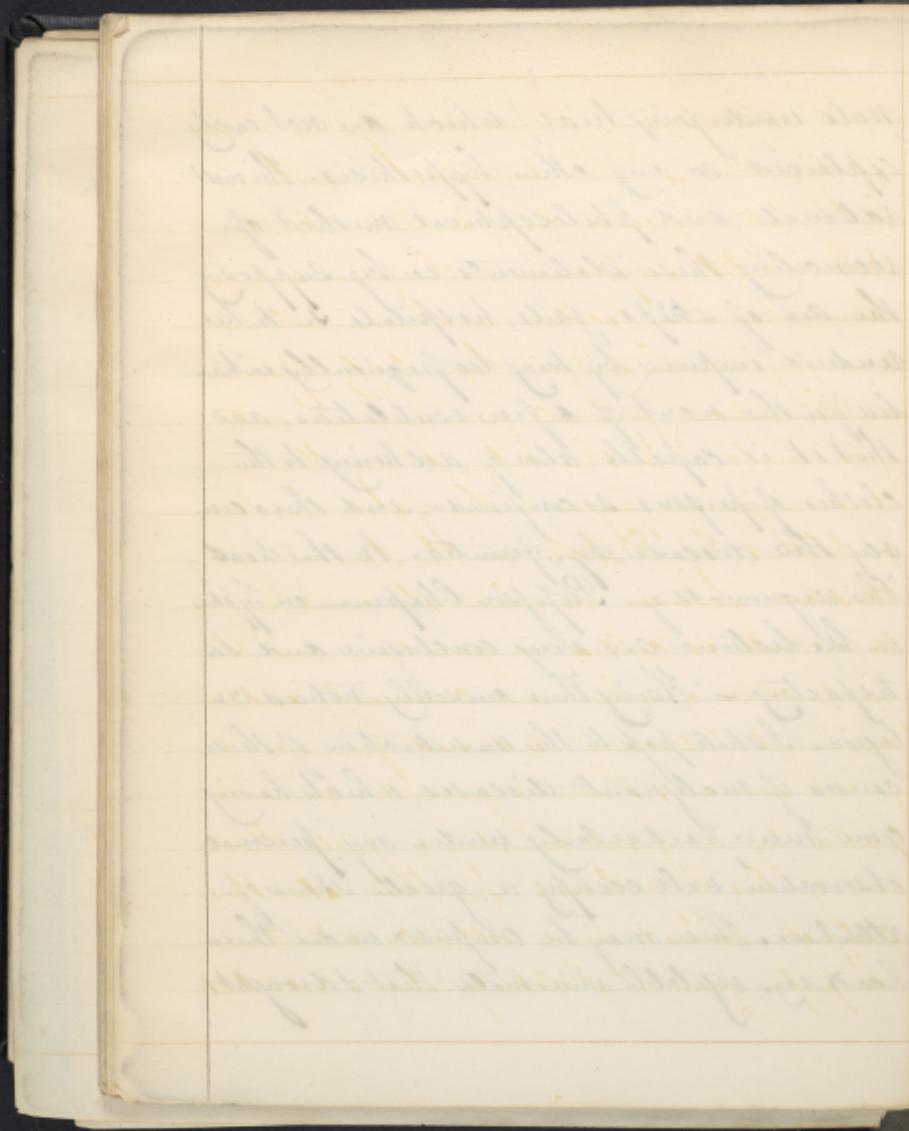


acid, digitalis, tartar emetic and other similar
preparations, whose exhibition is so rapidly
followed by sedative effects, that it is pre-
sumed that they are capable of produ-
cing ~~any~~ other. There can likewise be little
doubt respecting the operations of solca. & the
depurifying processes -

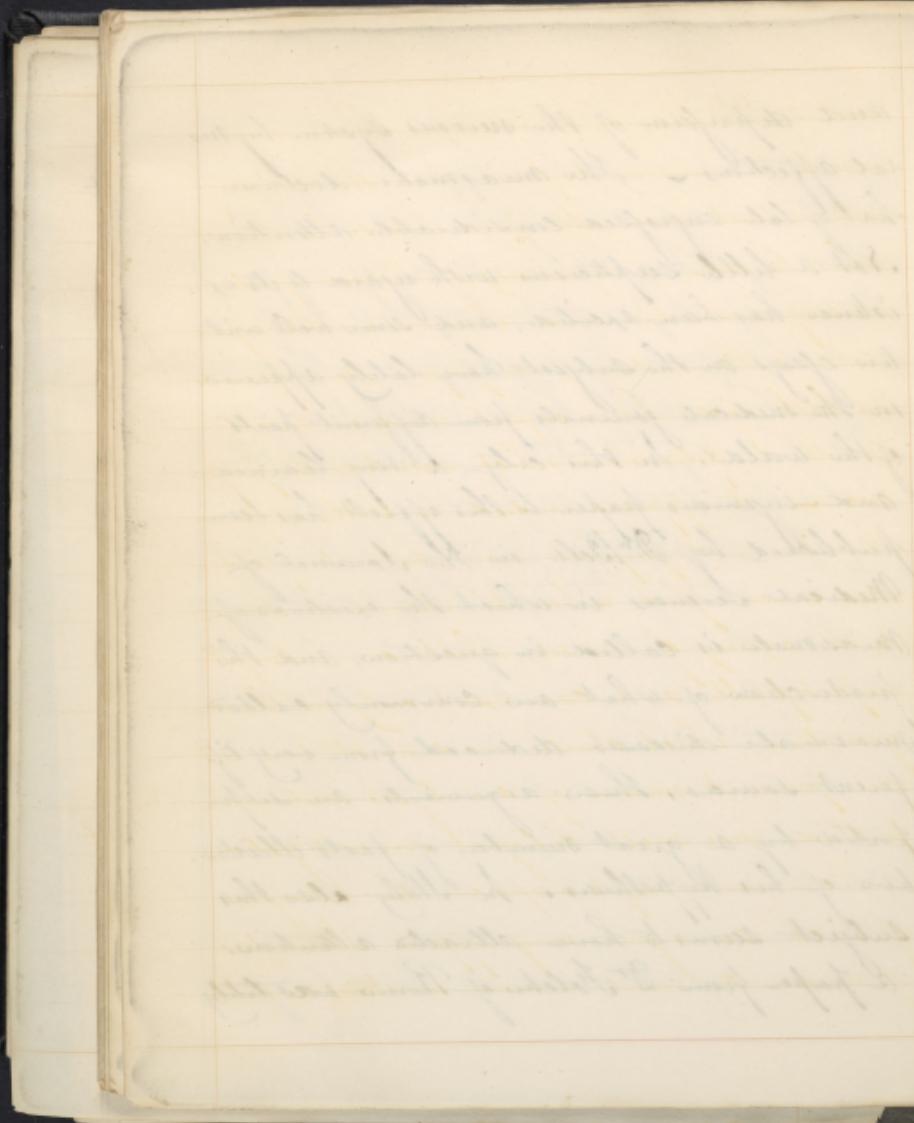
Contagion is a word of ominous
import and has long been the favorite sub-
ject of the most intelligent of the physicians.
As its nature and modus operandi are
inexplicable it affords a very convenient
subterfuge to avoid further investigation -
Except in Variole and one or two others
of the Exanthemata it is now entirely rejected
by the best pathologists. There are how-
ever some facts related by Ringo, Blans, Hoy
garth &c such as the army of Sir John
Mao and the court infected by some crimi-
nals



men undergoing trial, which are not easily explained on any other hypothesis. The most rational and philosophical method of reconciling these statements is by supposing the air of ships, jails, hospitals &c to be rendered impure by being too frequently confined for the want of a free ventilation, and that it is capable also of adhering to the clothes of persons so confined and thus convey the disease by contact. On this head the arguments of Professor Chapman on Syphilis in his lectures are very conclusive and satisfactory - Having thus cursorily noticed contagion, I shall pass to the consideration of those causes of malignant diseases, which having come more particularly under my personal observation will occupy a greater share of attention. These may be comprised under three heads, viz. vegetable miasmas, heat & droughts

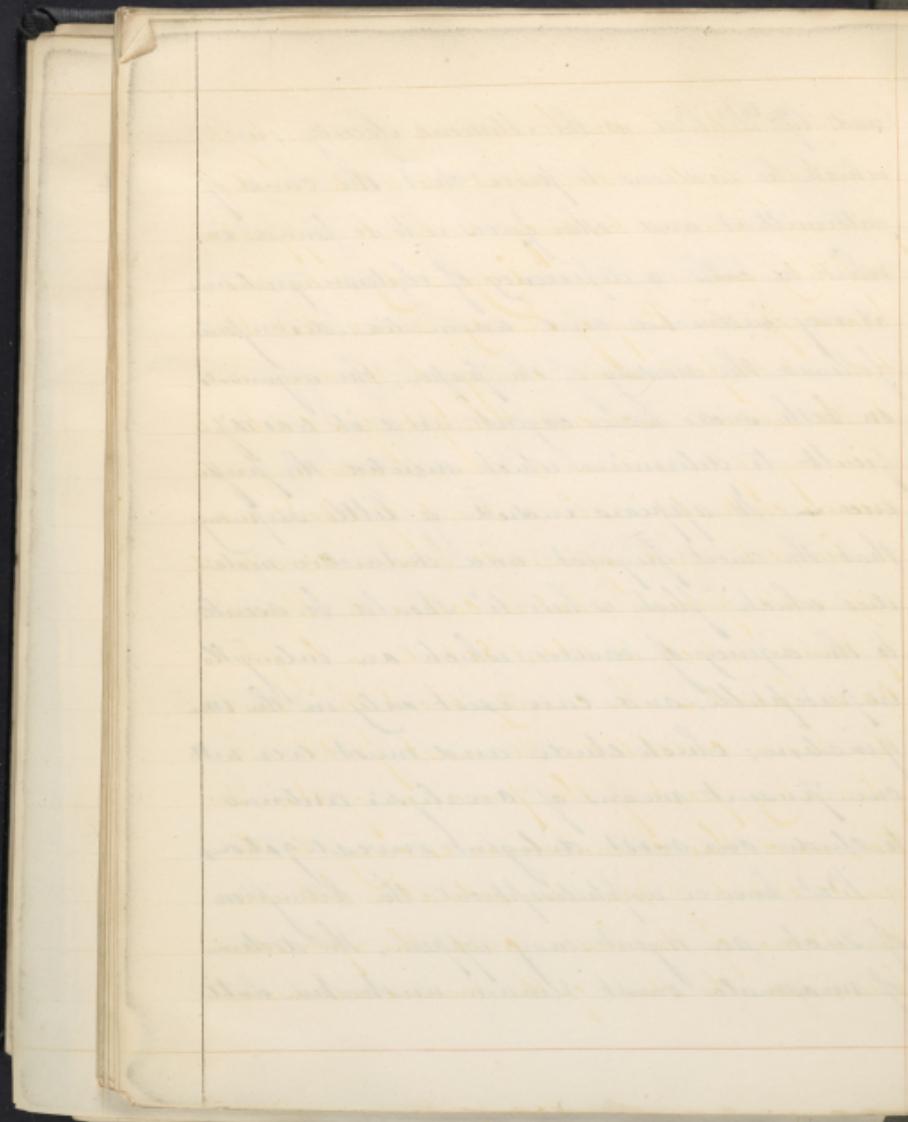


and depression of the nervous system by no
real affections - The miasmatic doctrine
has of late招致 considerable attention.
Not a little scepticism with regard to its ex-
istence has been excited, and some well written
essays on the subject have lately appeared
in the medical journals from different parts
of the world. In this city a very learned
and ingenious paper to this effect has been
published by Dr. Bell in the Journal of
Medical Sciences in which the existence of
miasma is called in question, and the
production of what are commonly called
miasmatic diseases deduced from very dif-
ferent sources. These arguments are sup-
ported by a great number of facts illustrat-
ing his hypothesis. In Italy also this
subject seems to have attracted attention.
A paper from Dr. Folchi of Rome was lately



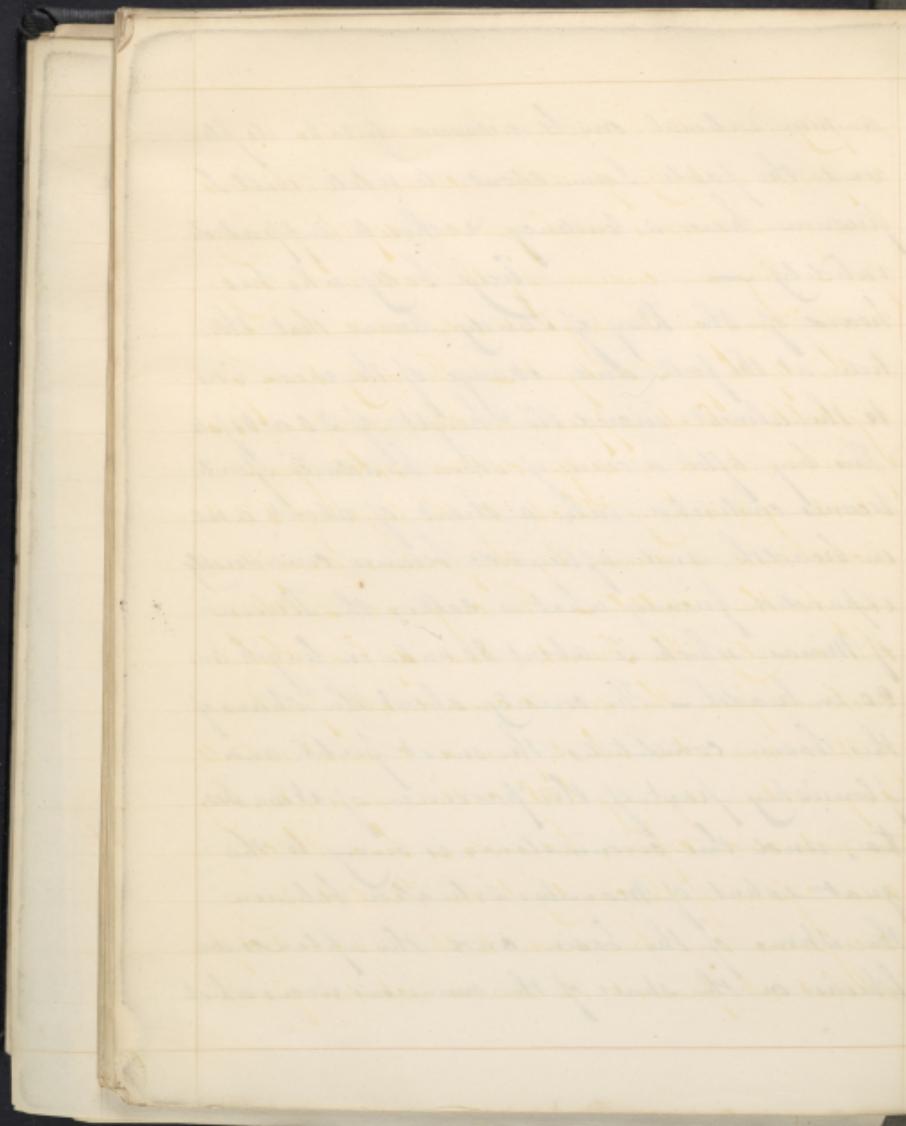
read by Dr Bell at the Medical Society, in
which he endeavours to prove that the cause of
intermittent and other fevers is to be found in
what he calls a deficiency of electromagnetism.
A very instructive and animated discussion
followed the reading of the paper, the arguments
on both sides were cogent, and it was dif-
ficult to determine which metted the pre-
ference. It appears indeed a little surprising
that the most frequent and destructive mala-
dies which "flesh is heir to" should be avowed
to the agency of causes, which are intangible
imperceptible, and can exist only in the ima-
gination; which elude and must ever with
our present means of analysis continue
to elude our most diligent investigation.

But however unphilosophical the admission
of such an agent may appear, the doctrine
of miasma must remain unshaken until

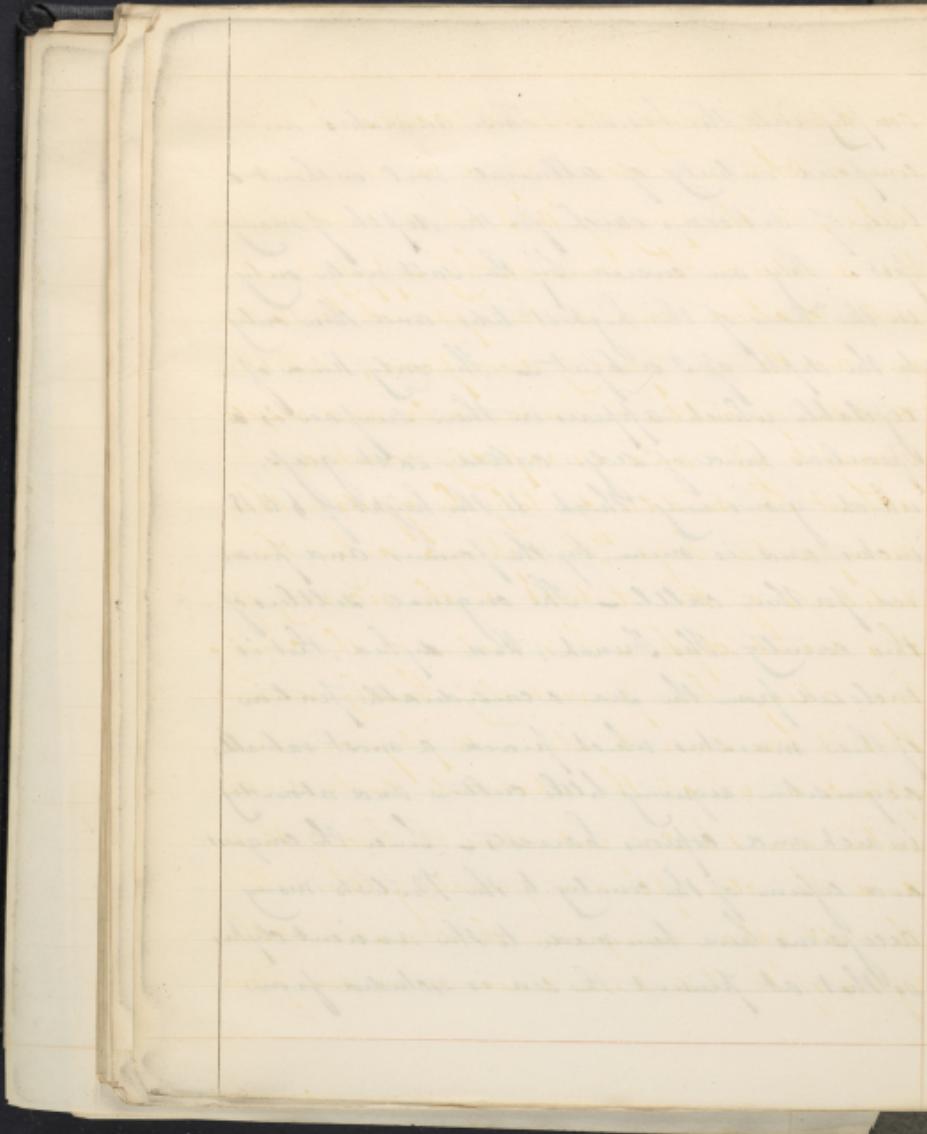


a more rational one be discovered to take its place
and the facts I am about to relate will I
presume have a tendency rather to support its
validity —

Every body who has
heard of the Bay of Fundy, knows that the
tide at the full and change of the moon rises
to the almost incredible height of 50 or 60 ft.
This bay after a course of some hundreds of miles
becomes contracted into a strait of about a mile
in breadth, and afterwards becomes considerably
expanded forming what is called the Basin
of Minas which is about 80 miles in length and
20 in breadth — The country about the shores of
this basin constitutes the most fertile and
flourishing part of the province of Nova Sco-
tia, and this circumstance is owing to the
great extent of marshes situated between
the shores of the basin and the uplands on
which are the shores of the numerous rivers which

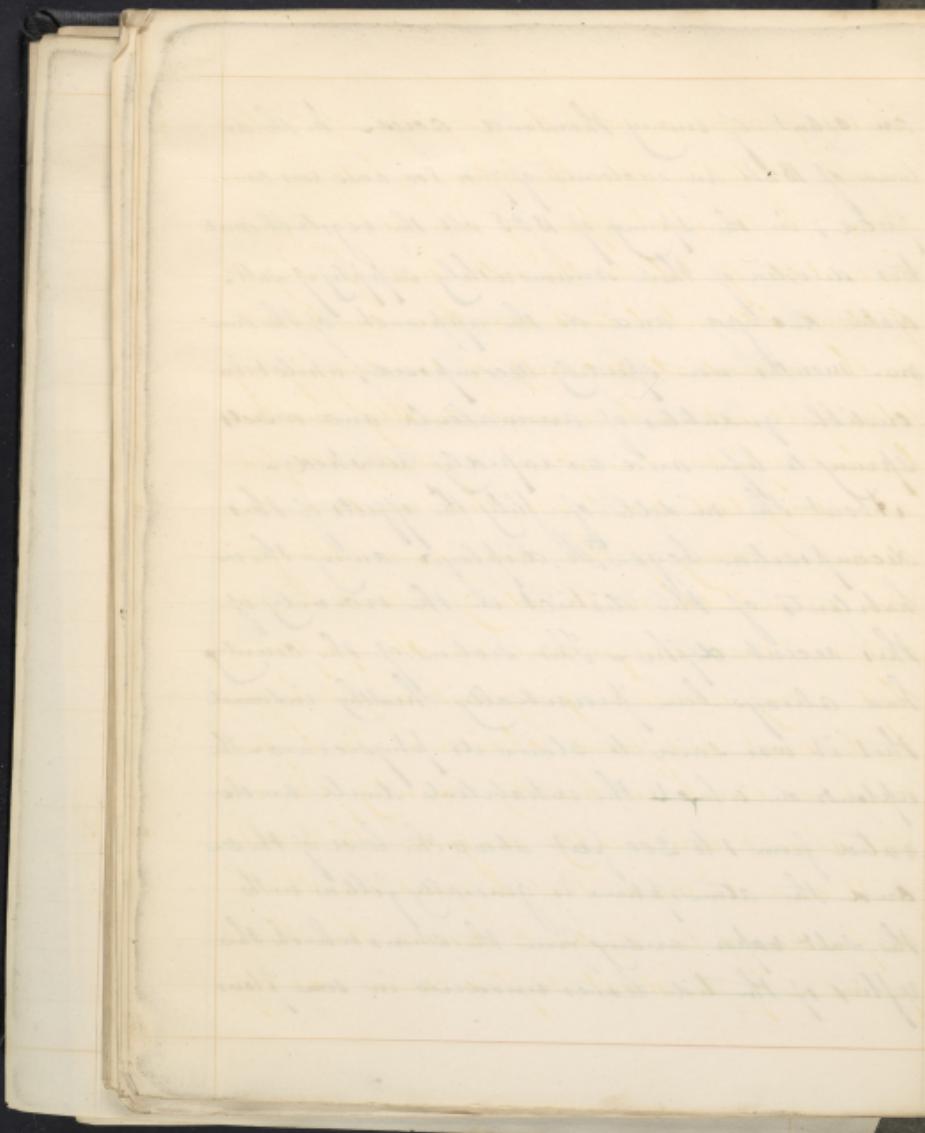


empty into the basin. These marshes are composed entirely of alluvial soil without a trace of siliceous earth for the depth of many feet. They are covered by the salt water only in the times of the highest tides, and then only to the depth of 5 or 6 feet. The only kind of vegetable which appears on their surface is a peculiar kind of grass called salt grass, which grows very thick to the height of 6 to 18 inches and is eaten by the former and preserved for their cattle. The original settlers of this country, the French, had dykes, that is, enclosed from the sea a considerable portion of these marshes, which proved a most valuable acquisition, requiring little culture and abounding in rich and copious harvests. Since the conquest and cession of the country to the British many improvements have been made to the ancient dykes so that at present the sea is excluded from

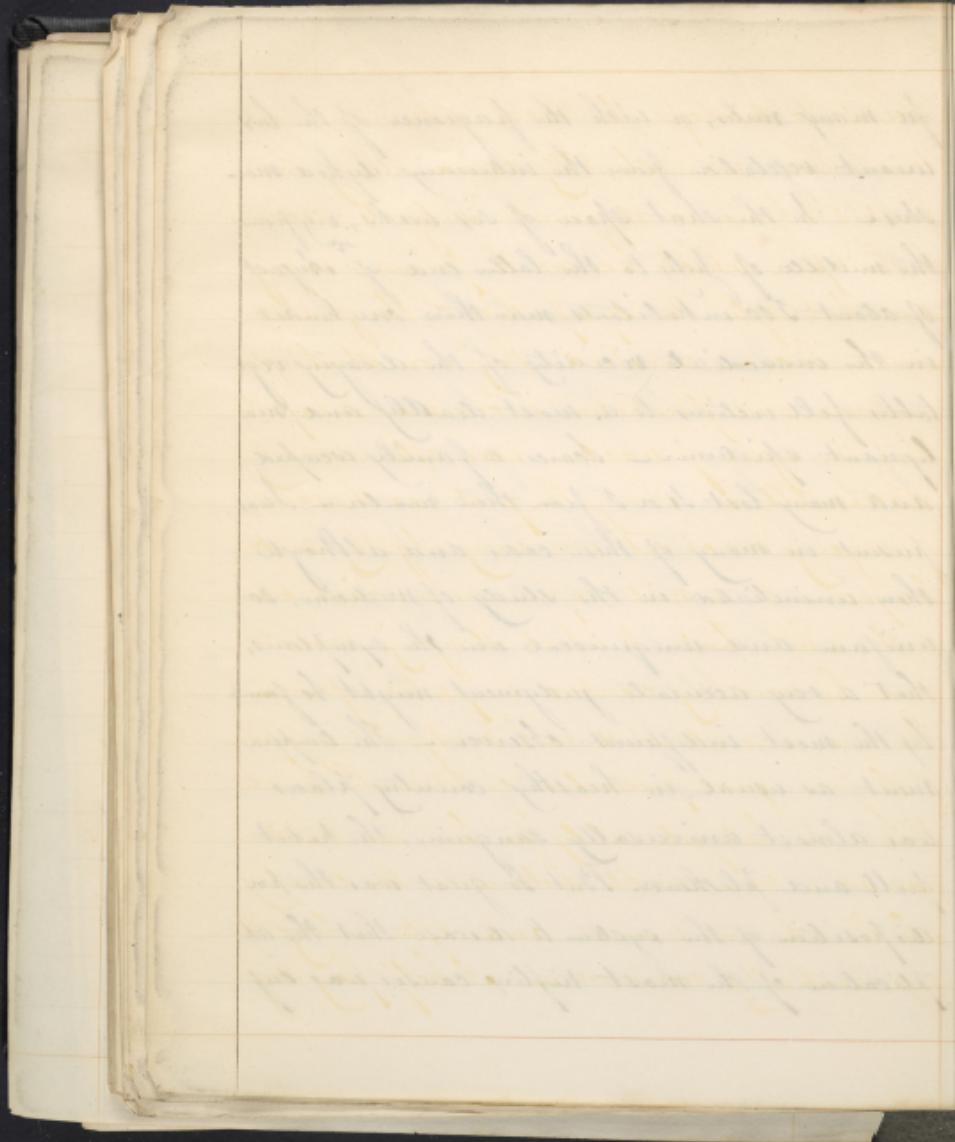


an extent of many thousand acres. In the autumn of 1824 an enclosure of 7000 acres was completed; in the spring of 1825 all the vegetable materials destined for the permanent supply of salt-water decays and on the approach of the summer months were rapidly decomposed; whilst in considerable quantities of animalcula and insects sprung to life and as rapidly perished.

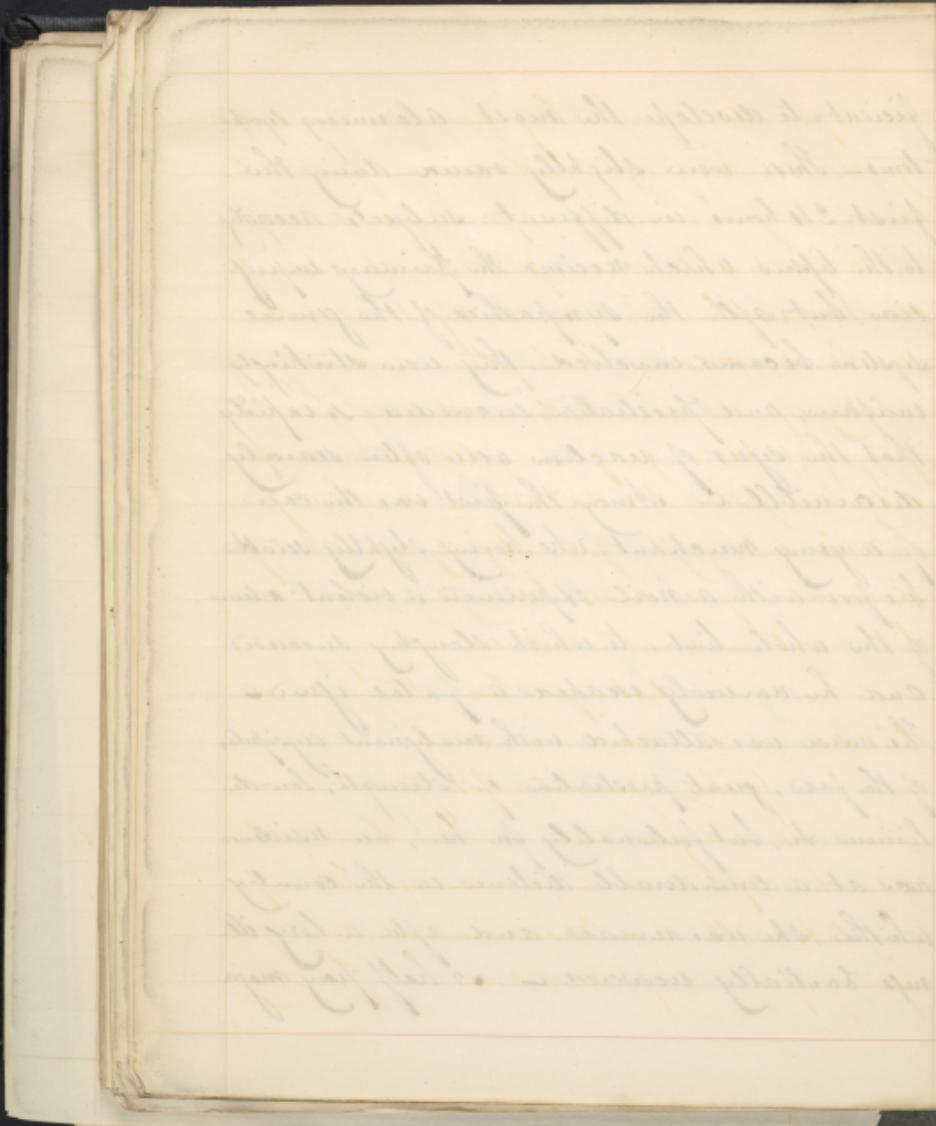
About the middle of July the effects of this decomposition began to be displayed among the inhabitants of the district in the vicinity of this recent dyke. This section of the country had always been proverbially healthy insomuch that it was said to stand its physicians. The uplands on which the inhabitants dwelt were elevated from 1 to 200 feet above the level of the sea and the atmosphere is generally filled with the salt vapor arising from the shores which the reflux of the tide leaves uncovered in some places



for many miles, or with the fragrance of the luxuriant vegetation from the intervening dyked marshes. In the short space of six weeks, ^{as} from the middle of July to the latter end of August of about 500 inhabitants marshes one hundred in the immediate vicinity of the decaying vegetables fell victims to a most deadly and malignant epidemic - scarce a family escaped and many lost 4 or 5 from their number. It was present in many of these cases and although then uninitiated in the study of medicine, so uniform and unequivocal were the symptoms, that a very accurate judgment might be formed by the most indifferent observer. The temperature as usual in healthy country places was almost universally sanguine, the habit full and plethoric. But so great was the predisposition of the system to disease that the application of the most trifling causes was suf-



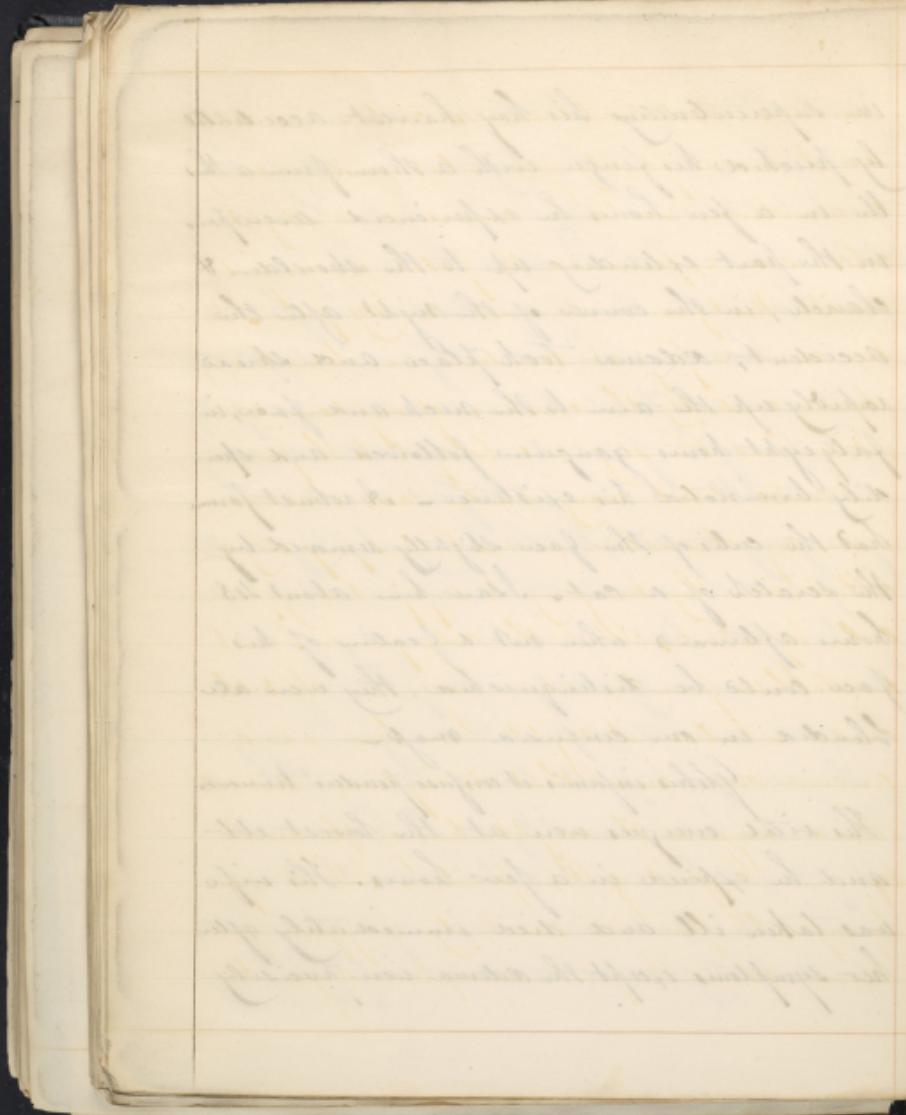
ficient to develop the most alarming symptoms. These were slightly varied during the first 24 hours in different subjects according to the types which received the primary impression, but after the sympathies of the general system became involved, they were strikingly uniform; and prostration succeeded so rapidly that the signs of reaction were often scarcely discernible. Among the first was the case of a young merchant, who having slightly scratched his foot with a nail experienced a violent adenœ of the whole limb, to which sloughing succeeded and he narrowly escaped a fatal issue. His nurse was attacked with malignant erysipela of the face, great prostration & strength, low delirium etc, but fortunately for her, her residence was at a considerable distance in the country whence she was removed, and after a long illness partially recovered. A half pay major



in superintending his hay harvest accidentally
by picked his finger with a thorn from a thistle
No in a few hours he experienced severe pain
in the part extending up to the shoulder &
elbow, in the course of the night after the
accident, edema took place and spread
rapidly up the arm to the neck and face, in
forty-eight hours gangrene followed and speedily
terminated his existence - A robust farm
boy had the cuts of the face slightly removed by
the scratches of a cat. I saw him about 48
hours afterward when not a feature of his
face could be distinguished, they were all
blended in one confused mass -

Globus infamis et confuso pondere trunus.

His vital energies were at the lowest ebb
and he expired in a few hours. His wife
was taken ill and died immediately after,
her symptoms except the edema were precisely



similar. Between 30 and 40 children, sometimes
4 or 5 in one family from what under ordinary
circumstances would be considered a slight
cold, soon experienced the fatal effects of Cip-
rean or Malibou in its most deadly form. In
two cases a perfect membrane was taken up
showing evidently the existence of inflammation
but without the slightest benefit to the patient.

I could detail many similar cases, which come
under my observation, and which I perfectly re-
collect, were they necessary to support any parti-
cular hypothesis; But the only point I wish
to establish from the above cases, is that the
cause whatever it might have been, was a
common one, and that its influence did not
extend beyond the neighborhood of the recent
typho - The first of these positions I think is par-
ticularly inferrible from the similarity of effects, for
however varied the first symptoms might be

on account of the peculiar nature of the exciting cause, or the typhus or yellow jessamine of India, they were universally succeeded by that train of symptoms which so strikingly characterizes the march of all malignant diseases and which it would be superfluous to enumerate, as they must be present in the mind of every one who has witnessed a fatal case of Typhus or Yellow jessamine. That the cause was not exclusively heat, moisture, precipitates, wind or the general situation of the atmosphere is deducible from the limitation of the disease to our particular spot, from the general prevalence of health in the country around, and in particular from the immunity of 2 or 3 families some of which were very far from which although in the immediate proximity of the marsh happened to occupy very elevated situations, placing them in all probability above the level of the miasmatic taint - Notwithstanding

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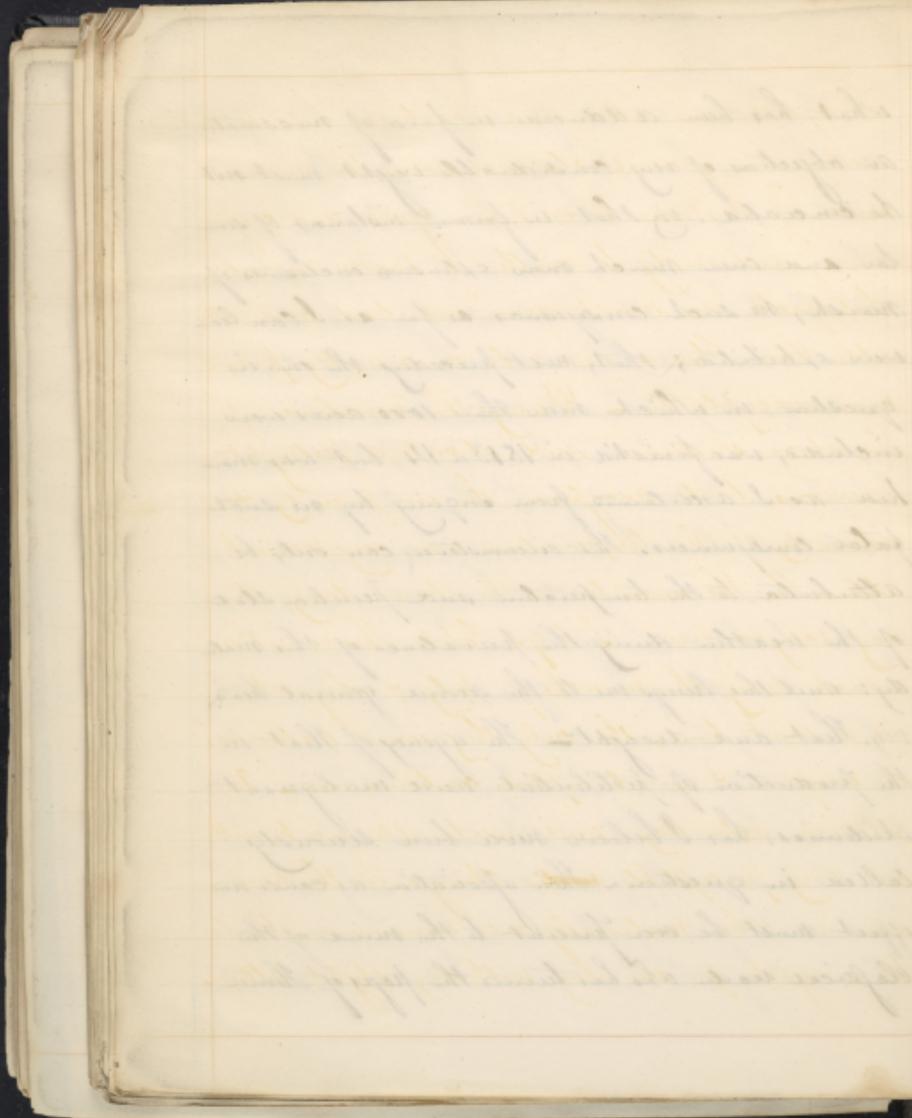
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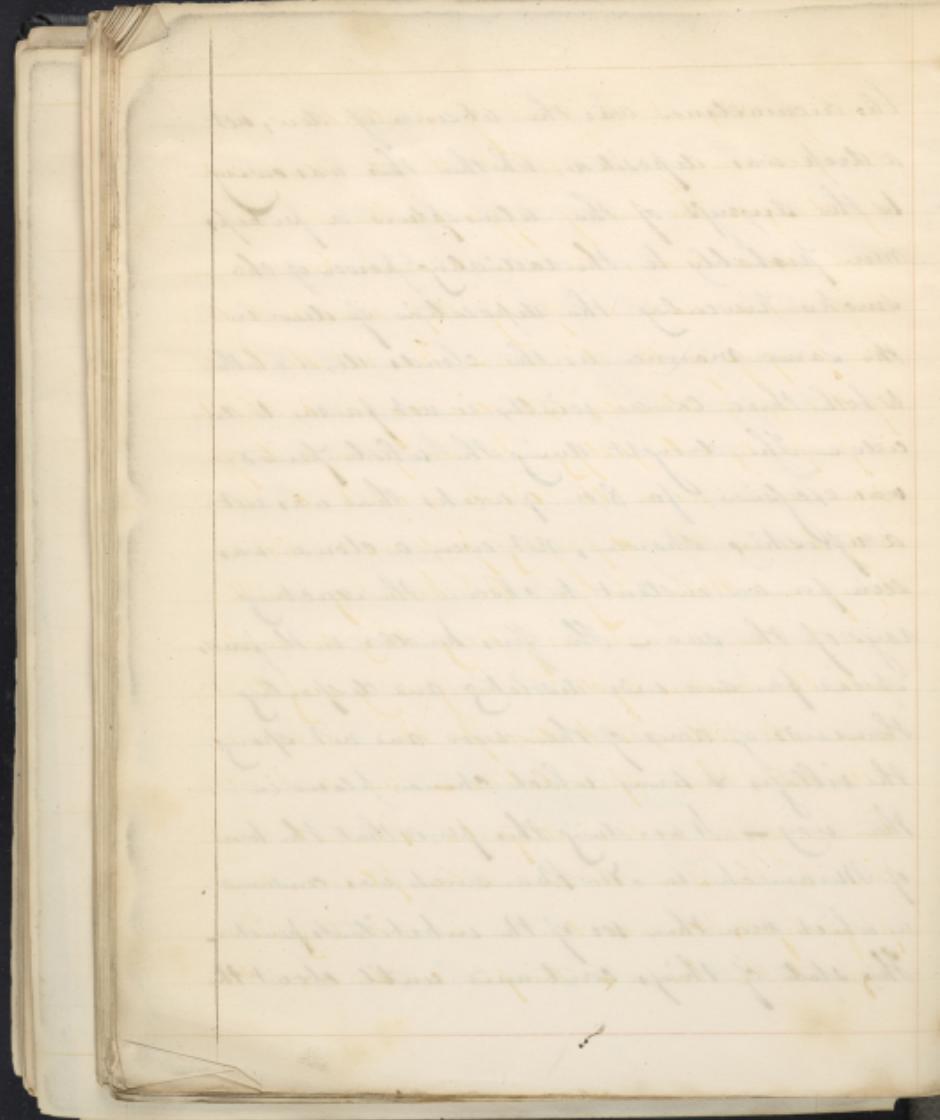
what has been adduced in favor of one climate
an objection of very considerable weight must not
be overlooked, viz. that in former instances of simi-
lar and even much more extensive enclosure of
marsh, no such consequences as far as I can learn
ever exhibited; that, next preceding the one in
question, in which more than 1000 acres were
included, was finished in 1813 a 14 but was man-
aged as I ascertained from inquiry by no such
fatal consequences. This circumstance can only be
attributed to the temperature and peculiar state
of the weather during the prevalence of this mal-
ady; and this brings me to the second general head,
viz. Heat and drought - The agency of Heat in
the production of pestilential and malignant
epidemics, has I believe never been seriously
called in question - Their association as cause and
effect must be ever present to the mind of the
classical reader who has turned the pages of Homer



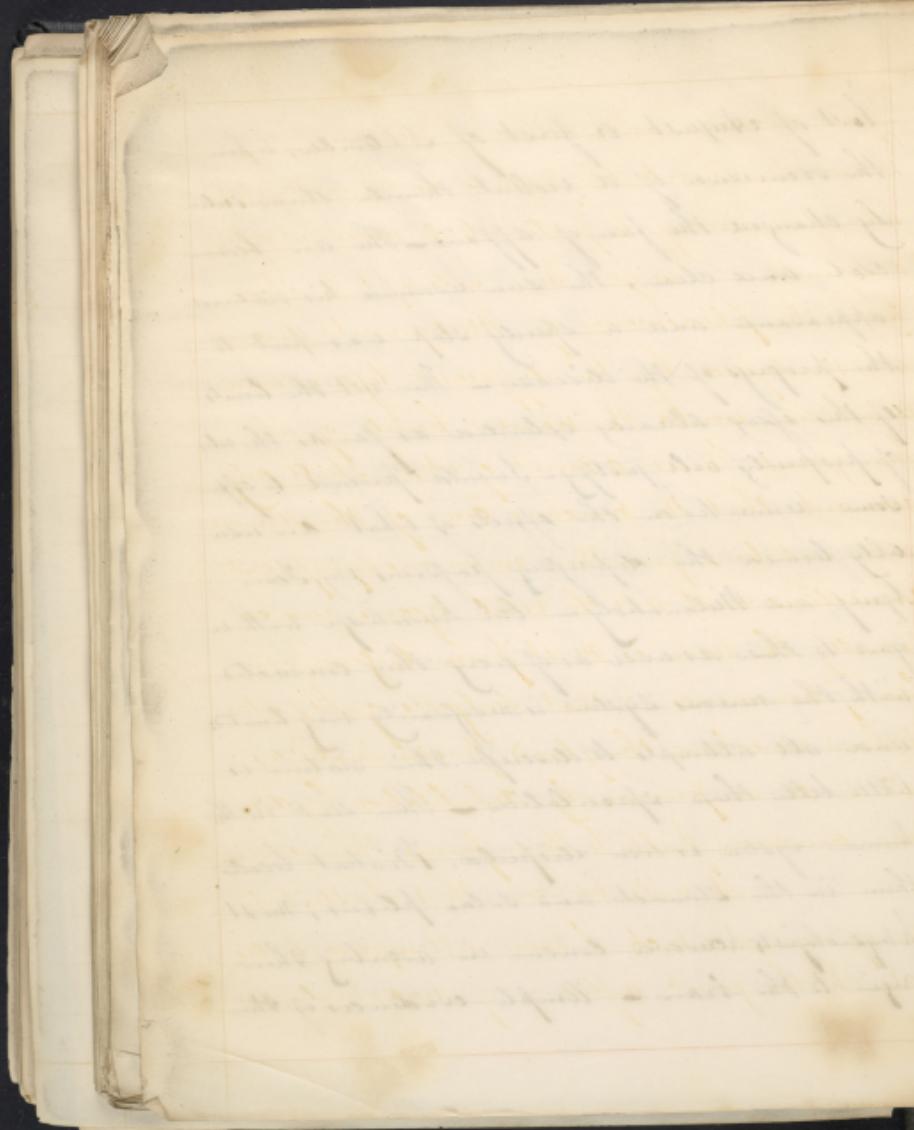
Thucydides, Thucrasius and Tacitus - I shall omit making any general observations on the modes of
transmission of Heat as a medicinal agent and confine myself exclusively to matters of fact, convinced
that facts are much more important and valuable than theories and will consequently prove
more acceptable - During the prevalence of
the above epidemic and about a fortnight previous to its cessation, the uniformity &
intensity of this temperature were very remark-
able - The thermometer in the shade during the
day ranged from 75° to 95° Fahr. This is not un-
usual during the months of July & August
for a short time - The only thing remarkable was,
its uniform & uninterrupted continuance - Day
followed after day and week after week, with
out any perceptible ~~or~~ change in the tempera-
ture or other meteorological phenomena - The tem-
perature registered for one day with very slight altera-

tions would have been applicable to us in our
affair - The atmosphere was loaded with smoke
from the continuous ^{burning} of the back settlers in clearing
their lands, to such a degree that objects were
not visible at the distance of a few yards - This
is I presume a sufficient proof of the lowness of
the atmosphere, though to what degree cannot be
precisely determined as no barometrical register
was kept in the neighborhood - The sun exhibi-
ted a red & fiery appearance throughout the day
but more especially in the morning and evening, which
was doubtless owing to the interposition of the
dense smoke; and to this cause may also be
attributed the mildness of his rays for I recollect
perfectly, it was not painful to the eyes to gaze
at him steadily for some minutes; There was
scarcely a breath of wind during the whole time
which, in case it had blown would speedily have
dispersed the smoke - Another very remarka-
ble

the circumstance was the absence of dew, not
a drop was deposited, whether this was owing
to the dryness of the atmosphere or perhaps
more probably to the retarding power of the
smoke preventing the deposition of dew in
the same manner as the clouds do, or whether
to both these causes jointly is not for me to de-
cide - The drought during the whole period
was extreme, for 8 or 9 weeks there was not
a refreshing shower, not even a cloud was
seen for an instant to obscure the scorching
rays of the sun - The fires kindled in the forests
spread far and wide desolating and despoiling
thousands of acres of their wood and not sparing
the villages & towns which chance placed in
their way - It was during this period that the town
of Miramichi in New Brunswick was consumed
in which near than 100 of the inhabitants perished
This state of things continued until about the

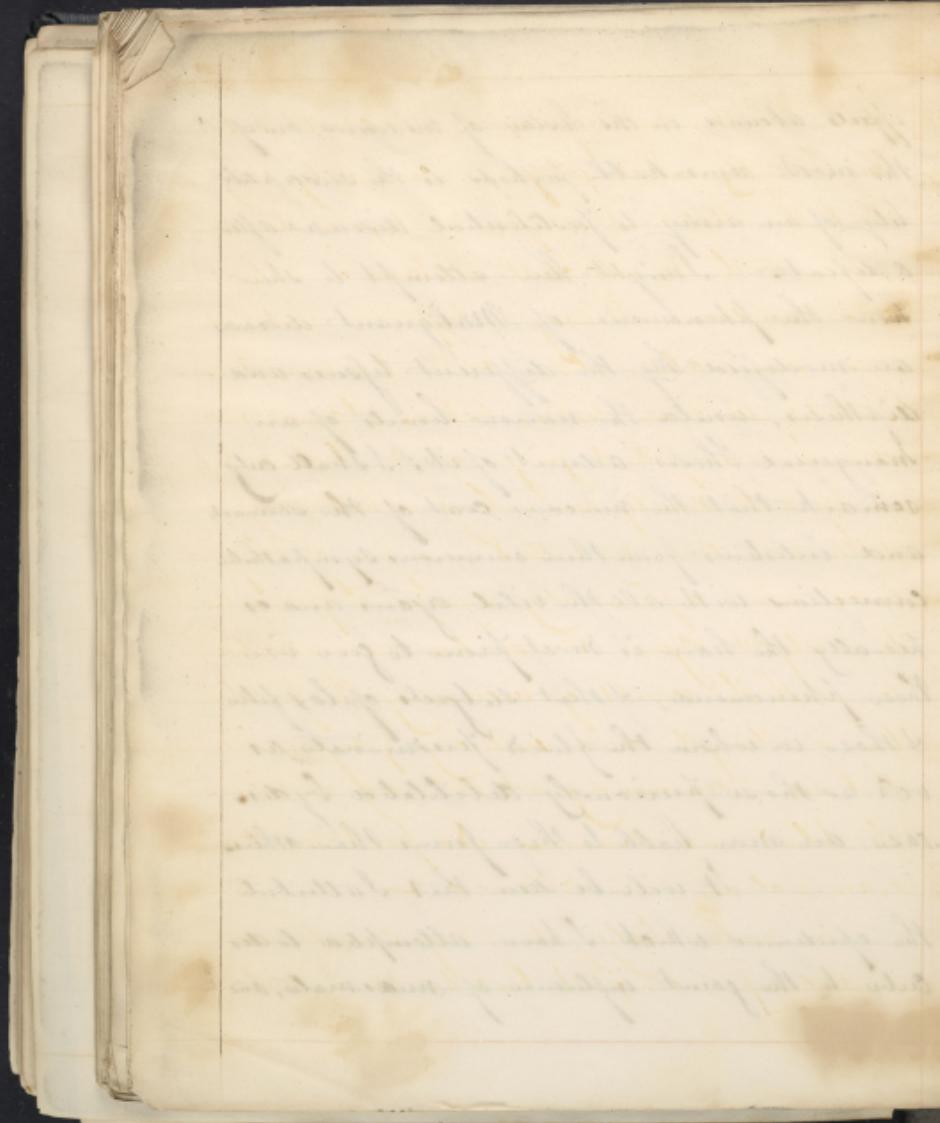


last of August or first of September, when
the occurrence of a violent thunder storm entire-
ly changed the face of affairs - The air became
cool and clear, the sun resumed his natural
appearance and a speedy stop was put to
the progress of the disease - Now not the limits
of this stage already extended as far as the acts
of property will justify I would proceed to offer
some remarks on the effects of what an usual-
ly termed the depressiv^e passions viz. Fear.
Grief and Melancholy - Our knowledge with re-
gard to these as well as of every thing connected
with the nervous system is necessarily very limited;
and all attempts to describe their坐ations is
little better than speculation - The seat in the
human system is even disputed. Bichat locates
them in the Stomach and Solar plexus; most
physiologists however concur in ascribing their
rise to the brain - Ample evidences of this



ffects abound in the history of medicine, one of
the most remarkable perhaps is the susceptibility
of an army to pestilential diseases after
a defeat. I might here attempt to shew
how the phenomena of Malignant disease,
are modified by the different tissues and
diathesis, would the narrow limits of an
epitome admit of it; I shall only
remark that the mucous coat of the Stomach
and intestines from their numerous sympathetic
connections with all the vital organs and
peculiarly the brain is most prone to give rise
to these phenomena, I shall subjects of old age
& those in whom the fluid predominates as
well as those previously debilitated by dis-
eases are more liable to these forms than others.

It will be seen that I attribute
the epidemic which I have attempted to de-
cribe to the joint influence of microcosm, and



heat - whether my inferences are correct or not
The Faculty must judge; I can only say
that the statement as far as it goes, has been
given with the strictest adherence to truth
and candour. It may be expected that I shall
offer some observations on the treatment in-
stituted in these cases; but as I could not
then be a competent judge of it, I shall pass
it by with merely remarking, that very
little was done, and that in a few of the first
cases where inflammatory symptoms prevailed
to a slight degree, venesection was resorted to,
with the result of increasing the prostra-
tion of strength and inducing gangrene in
the arms, commencing at the arteries whence
the blood was drawn - No post mortem
examination was allowed -

The melancholy fate of my Countrymen
and companions first excited me to embark

in the study of Medicine, which I commenced in the ensuing Autumn; and my inquiries have ever since been directed to this point more particularly than any other.

Although I have read several authors on the subject such as Foddyer, Phipps, Slyham, Lind, Jackson, Haygarth &c, I have avoided quotations, regarding a candid statement of facts to which I was an eye witness preferable to the crude & premature speculations of a novice in the science —

E. F.

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